COLOR TELEVISION RECEIVER

Chassis : S63B(P)_Shine2
Model : CW29Z308TXXXEC

SERVICE Manual

COLOR TELEVISION RECEIVER

CW-29Z308T

FEATURES

- Slimfit(Low Depth) CRT
- SRS-TRUSURROUND
- Full 100Hz

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1. Precaution

To avoid possible damages or electric shocks or exposure to radiation, follow the instructions below with regard to safety, installation, service and ESD..

1-1 Safety Precautions

1. Make sure all protective devices are properly installed including non-metallic handles and compartment covers when installing or re-installing the chassis or chassis assemblies.

2. Make sure that no gaps exist between the cabinets for children to insert their fingers in to prevent children from receiving electric shocks. Gaps mentioned above include ventilation holes of a too great magnitude between the vaccum tube and the cabinet mask, and the improper installation of the rear cabinet.

   Errors may occur when the resistance is below 1.0 ㏁ or over 5.2 ㏁.
   In these cases, make sure that the device is repaired before sending it back to the customer.

3. Check for Electricity Leakage (Figure 1-1)
   Warning: Do not use an insulated transistor for checking the leakage. Use only those current leakage testers or mirroring systems that comply with ANSIC 101.1 and the Underwriter Laboratory's specifications (UL1410, 59.7).

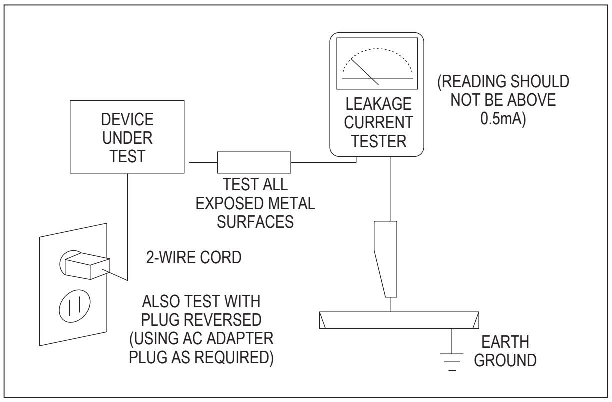

DEVICE UNDER TEST
LEAKAGE CURRENT TESTER
(READING SHOULD NOT BE ABOVE 0.5mA)
TEST ALL EXPOSED METAL SURFACES
2-WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

Fig. 1-1 AC Leakage Test

4. A high voltage is maintained within the specified limits using safety parts, calibration and tolerances. When voltage exceeds the specified limits, check each special part.

5. Warning for Engineering Changes:
   Never make any changes or additions to the circuit design or the internal part for this product.
   Ex: Do not add any audio or video accessory connectors. This might cause physical damage. Furthermore, any changes or additions to the original design/engineering will invalidate the warranty.

6. Warning - Hot Chassis:
   Some TV chassis are directly connected to one end of the AC power cord for electrical reasons.
   Without insulated transistors, the product can only be repaired safely when the chassis is connected to the earthed end of the AC power source.

   To make sure the AC power cord is properly connected, follow the instructions below. Use the voltmeter to measure the voltage between the chassis and the earthed ground. If the measurement is over 1.0V, unplug the AC power cord and change the polarity before re-inserting it. Measure the voltage between the chassis and the ground again.

7. Some TV chassis are shipped with an additional secondary grounding system. The secondary system is adjacent to the AC power line. These two grounding systems are separated in the circuit using an unbreakable/unchangeable insulation material.

8. When any parts, material or wiring appear overheated or damaged, replace them with new regular ones immediately. When any damage or overheating is detected, correct this immediately and make a regular check of possible errors.

9. Check for the original shape of the lead, especially that of the antenna wiring, any sharp edges, the AC power and the high voltage power. Carefully check if the wiring is too tight, incorrectly placed or loose. Never change the space between the part and the printed circuit board. Check the AC power cord for possible damages. Keep the part or the lead away from any heat-emitting materials.

10. Safety Indication:
    Some electrical circuits or device related materials require special attention to their safety features, which cannot be viewed by the naked eye. If an original part is replaced with another irregular one, the safety or protective features will be lost even if the new one has a higher voltage or more watts.

    Critical safety parts should be bracketed with (⚡ ⚠). Use only regular parts for replacements (in particular, flame resistance and dielectric strength specifications). Irregular parts or materials may cause electric shock or fire.

1-2 Servicing Precautions

Warning 1: First carefully read the "Safety Instruction" in this service manual.
When there is a conflict between the service and the safety instructions, follow the safety instruction at all times.

Warning 2: Any electrolytic capacitor with the wrong polarity will explode.

1. The service instructions are printed on the cabinet, and should be followed by any service personnel.

2. Make sure to unplug the AC power cord from the power source before starting any repairs.
   (a) Remove or re-install parts or assemblies.
   (b) Disconnect the electric plug or connector, if any.
   (c) Connect the test part in parallel with the electrolytic capacitor.

3. Some parts are placed at a higher position than the printed board. Insulated tubes or tapes are used for this purpose. The internal wiring is clamped using buckles to avoid contact with heat emitting parts. These parts are installed back to their original position.

4. After the repair, make sure to check if the screws, parts or cables are properly installed. Make sure no damage is caused to the repaired part and its surroundings.

5. Check for insulation between the blade of the AC plug and that of any conductive materials (i.e. the metal panel, input terminal, earphone jack, etc).

6. Insulation Check Process: Unplug the power cord from the AC source and turn the switch on. Connect the insulating resistance meter (500v) to the AC plug blade.

   The insulating resistance between the blade of the AC plug and that of the conductive material should be more than 1 ㏁.

7. Any B+ interlock should not be damaged.
   If the metal heat sink is not properly installed, no connection to the AC power should be made.

8. Make sure the grounding lead of the tester is connected to the chassis ground before connecting to the positive lead. The ground lead of the tester should be removed last.

9. Beware of risks of any current leakage coming into contact with the high-capacity capacitor.

10. The sharp edges of the metal material may cause physical damage, so ensure wearing protective gloves during the repair.

1-3 Static Electricity Precautions

1. Some semi-conductive ("solid state") devices are vulnerable to static electricity. These devices are known as ESD. ESD includes the integrated circuit and the field effect transistor. To avoid any materials damage from electrostatic shock, follow the instructions described below.

2. Remove any static electricity from your body by connecting the earth ground before handling any semi-conductive parts or ass'ys. Alternatively, wear a dischargeable wrist-belt.
   (Make sure to remove any static electricity before connecting the power source - this is a safety instruction for avoiding electric shock)

3. Remove the ESD ass'y and place it on a conductive surface such as aluminum foil to prevent accumulating static electricity.

4. Do not use any Freon-based chemicals.
   Such chemicals will generate static electricity that causes damage to the ESD.

5. Use only grounded-tip irons for soldering purposes.

6. Use only anti-static solder removal devices.
   Most solder removal devices do not support an anti-static feature. A solder removal device without an anti-static feature can store enough static electricity to cause damage to the ESD.

7. Do not remove the ESD from the protective box until the replacement is ready. Most ESD replacements are covered with lead, which will cause a short to the entire unit due to the conductive foam, aluminum foil or other conductive materials.

8. Remove the protective material from the ESD replacement lead immediately after connecting it to the chassis or circuit ass'y.

9. Take extreme caution in handling any uncovered ESD replacements. Actions such as brushing clothes or lifting your leg from the carpet floor can generate enough static electricity to damage the ESD.

CAUTION

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

1-4 Installation Precautions

1. For safety reasons, more than two people are required for carrying the product..
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the projector in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before removing the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contacting the high-voltage cable or the antenna falling over may cause fire or electric shock.
7. When connecting the RF antenna, check for a DTV receiving system and install a separate DTV reception antenna for areas with no DTV signal.
8. Check the basics of the screen test.
   - Image position/size, Tilt adjustment

MEMO

2. Product Specification

2-1 Product Features

Block	Specfication	EU	East asia/CIS	Remark
CRT	- Slimmer than existing CRTs Existing: 495mm → Slimfit : 365mm	Vixlim CRT	Vixlim CRT	
RF Part	- Same as for the OZ(S62A) Model	TMQZ2-402A, PAL-CW	TMQZ2-401A, PAL-CS	
Power	- Input Voltage : AC 160~300V - Stand-By : Less than 3W	STR-X6750	STR-X6750	
Video	- PAL/SECAM/NT4.43/NT3.58 - Progressive 100Hz(Full 100Hz)	VCT69xyP CXA2165	VCT69xyP CXA2165	
Audio	- Output : 10W x 2 - Function : SRS-TRUSURROUND	VCT69xyP	VCT69xyP	
Cabinet	- New Front and Back Cabinets - 184mm of saved space compared to the existing model A11:580mm → Z40:396mm	Z30 Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	Z30(OZ) Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	

■ Core Parts Functions

- VCT69xyP : RF-CVBS,EXT-CVBS,FRONT Y,C,SCART1 R/G/B input and Video Signal Processing.
  Provides S-IF Analog audio And Digital audio signal input and decoding functions.
  I2C-Comunication,Master Control Micom, Rom Micom
- CXA2165 : H-out,VD-P,VD-N,RGB output,Video and Deflection Signal Processing.
- MST3383M : HDMI decoding Functions
- TW9906 : PIP Processor

2-2 Key Features

Model	WS32Z40 / CW29Z40 (Europe)	WS32Z31 (CIS)
Voltage	AC230V	160~300V
Frequency of Operation	50/60 Hz	50/60 Hz
Dimensions(mm)	934X399X568 (32") 796X421X593 (29")	796*415*586 (32")
Weight	54.5Kg (32") 43.0Kg (29")	54.0Kg (32")

■ H/W Configuration
- Slimfit(Low Depth) CRT adopted
- Progressive 100Hz (Full 100Hz)

■ S/W Configuration
- Multi System PAL/SECAM(CIS Option:NTSC4.43/NTSC3.58)
- ATS, Auto Wide, Pre Channel, On/Off Timer, Zoom, Blue Screen

■ Picture
- System
  Video : PAL/SECAM/ NTSC3.58(CIS Option)
  Sound : B/G, D/K, I, L/L', M(CIS Option)
- Black Level expansion, CTI, VM, Dynamic focus
- AKB(Auto kinetic Bias)
- Still picture, Digital Noise reduction
- PIP (2Tuner) : Option
- Auto Wide

■ Sound
- System : A2+Niacam Stereo, SRS Trusurround
- Output : 10W+10W
- Speaker : 2EA
- AVL, Melody, Auto Stereo, Auto Mute, Equalize

■ In/Out Terminals
- Side : 1 CVBS Input, 1 S-Video Input, Sound L/R
- Rear : 2 Scart, 1 Component(480i/480P/576i/576P/720P/1080i/1080P 50Hz/60Hz), 1 HDMI Input(Option)

■ Remocon : TM86

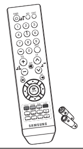
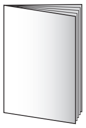
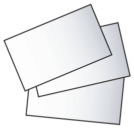
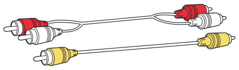
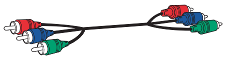
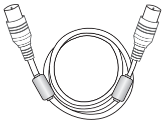
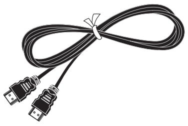
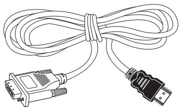
■ Power Supply
- Europe(230V), CIS(160V- 300V)

■ Power Consumption
- Stand-by : 3W
- Max Power : 180W

2-3 Specifications Analysis

Model		WS32Z30/CW29Z30	WS-32Z31HSQ
Chassis		S62B	S63B
Design			
Basic	Product Type	Slimfit CRT	Slimfit CRT
	Digital Display	-	-
	Screen Size	32 / 29 inch	32 inch
	Aspect Ratio	16:9 / 4:3	16:9
Visual Quality	Digital Comb Filter	-	○
	Screen Pitch	0.73	0.73
	AKB	○	○
	Digital Noise Reduction	○	○
	DNIe	-	-
	3:2 Pull Down Support	-	-
Audio	Base/Treble/Balance	-	-
	Equalizer	5 Band	5 Band
	AVL	○	○
	Surround	SRS-WOW	SRS-TRUSURROUND
	Speaker System	Direct	Direct
	Speaker Output	10W + 10W	10W + 10W
Function	Dual Screen Function	-	-
	Double Screen	-	-
	TTX	10page/200page(Option)	750page(Option)
	Still Picture	○	○
	Auto Jack Recognition	-	-
Ports	Antenna In	Rear : 1	Rear : 1
	External In	Rear:2, Side:1	Rear:2, Side:1
	S-Video	Side : 1	Side : 1
	Y/Pb/Pr	-	Rear : 1
	PC	-	-
	DVI	-	-
	HDMI	-	Rear : 1
	Digital Audio Out	-	-
	Video Out	Rear : 1	Rear : 1
	Audio Out	-	-

2-4 Accessories

Accessories		Item	Item code	Remark
Supplied Accessories		Remote Control AAA Alkaline Battery (2)	AA59-00382A 4301-000121	Samsung Service center
		Owner's Instructions	AA68-03785A	
		Warranty Card Registration Card Safety Guide	AA68-03278B AA68-03576A AA68-03242E	
Accessories that can be purchased additionally		Video Cable / Audio Cable	-	Internal shopping mall
		Component Cable	-	
		Antenna Cable	-	
		HDMI Cable	-	
		HDMI/DVI Cable	-	

3. Alignment & Adjustment

3-1 Service Instruction

1. General Adjustment :
In general, a color TV can provide ideal visual quality by adjusting the basic settings such as the vertical size, horizontal size, focus, etc.
Display a black and white picture on the screen to check if the picture is clearly displayed.
If there are some 'spotted' points on the screen when displaying a black and white picture, degauss the screen using the degauss coil. If the spotted points remain, re-adjust the purity and the convergence. This completes the basic performance examination.

⚠ Notice.

- ■ These adjustments and the check list are only applied to S63A chassis-applied models.
- ■ Only use 230V for the measurement set. It is recommended using an insulation transformer when supplying power to the set so as to prevent shock to the set or to yourself.
- ■ These adjustment specifications have been created on the basis of the domestic S63A chassis-applied remote control model. Some of the contents may be changed subject to the sales location and the product specifications.

2. When replacing the F_Box Board :
Since the software is loaded to the EPROM of the F_box board, check the version of the software of the EPROM.
To check the version of the software, Enter service mode presee the key on the reomte control according to the following seguenu.
(in stand-by status) Info→Menu→Mute→Power→ON
The software information will then be displayed below the OSD menu.
The notation of the software information : For example, T_SHPEU_1009 refers to "CORSET BASIC MODEL Europe. ver.1009".
Since the settings including the Channel information, Deflection, etc. are saved to the nvRAM, reconfigure these settings when replacing the System Board

3. When replacing the Main Board : No adjustments required. Except that Tilt adjustment, focus adjustment, screen voltage setting and W/B adjustment are all required.

4. When replacing the CRT Ass'y : No adjustments required.

5. When replacing the front panel master power switch : No adjustments required.

6. When replacing the Side AV : No adjustments required.

7. When replacing the control switch : No adjustments required.

3-2 How to Access Service Mode

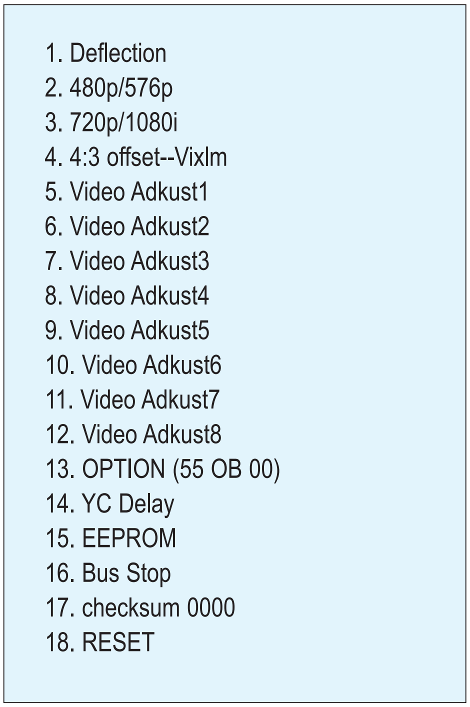
1. To enter Service Mode, press the keys on the remote control according to the following sequence. (in Stand-by status)

Info → Menu → Mute → Power On

※ When failing to enter Service Mode, repeat the procedure above.

2. The initial screen of Service Mode.

< Europe>



1. Deflection
2. 480p/576p
3. 720p/1080i
4. 4:3 offset--Vixlm
5. Video Adkust1
6. Video Adkust2
7. Video Adkust3
8. Video Adkust4
9. Video Adkust5
10. Video Adkust6
11. Video Adkust7
12. Video Adkust8
13. OPTION (55 OB 00)
14. YC Delay
15. EEPROM
16. Bus Stop
17. checksum 0000
18. RESET

3. Functions of the Keys within Service Mode

MENU	Show all menus
▲ / ▼	Move the cursor to select an item.
◀ / ▶	Adjust the selected configuration value

3-3 Factory Data

■ Europe

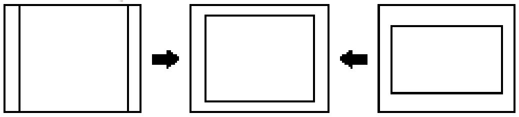
1. DEFLECTION(PAL)

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	30	30	34	Adjust
1	V Shift	0~63	26	26	27	Adjust
2	H EW	0~63	30	30	21	Adjust
3	H Shift	0~63	36	36	42	Adjust
4	V Linearity	0~15	6	6	6	FIX
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	1	1	1	FIX
7	V SC	0~15	3	3	4	FIX
8	H Parabola	0~63	32	32	48	Adjust
9	Upper Corner	0~63	37	37	38	Adjust
10	Lower Corner	0~63	34	34	35	Adjust
11	H Trapezium	0~63	40	40	37	Adjust
12	Bow	0~63	32	32	34	Adjust
13	Angle	0~63	30	30	28	Adjust
14	V Position	0~63	32	32	32	FIX
15	H Parablar_Pal(Offset)	0~63	0	0	0	FIX
16	Upper Corner_Pal(Offset)	0~63	0	0	0	FIX
17	Lower Corner_Pal(Offset)	0~63	0	0	0	FIX
18	Bow(Offset)	0~63	0	0	0	FIX

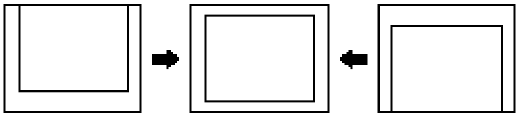
2. DEFLECTION(NTSC)

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	-4	-6 → -4	-6	Adjust
1	V Shift	0~63	-3	-3	-3	Adjust
2	H EW	0~63	0	-2 → 0	-2	Adjust
3	H Shift	0~63	-3	0 → -3	0	Adjust
4	V Linearity	0~15	0	0	0	Adjust
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	0	0	0	FIX
7	V SC	0~15	0	0	0	FIX
8	H Parabola	0~63	0	0	0	Adjust
9	Upper Corner	0~63	0	0	0	Adjust
10	Lower Corner	0~63	0	0	0	Adjust
11	H Trapezium	0~63	4	4	4	Adjust
12	Bow	0~63	0	0	0	Adjust
13	Angle	0~63	0	0	0	Adjust
14	V Position	0~63	0	0	0	FIX
15	H Parablar_Pal(Offset)	0~63	0	0	0	FIX
16	Upper Corner_Pal(Offset)	0~63	0	0	0	FIX
17	Lower Corner_Pal(Offset)	0~63	0	0	0	FIX
18	Bow(Offset)	0~63	0	0	0	FIX

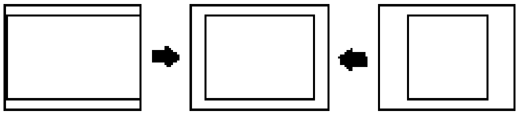
0 V - Amp



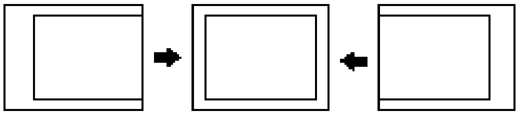
1 V-Shift



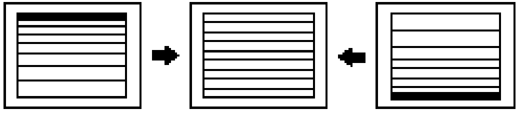
2 H-EW



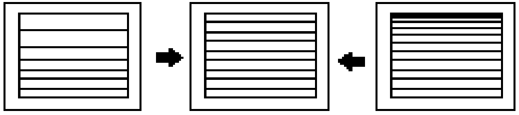
3 H-Shift



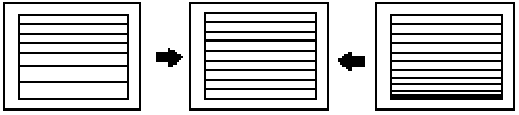
4 V-Linearity



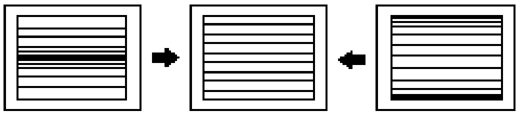
5 Upper Linearity



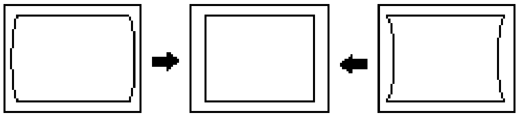
6 Low Linearity



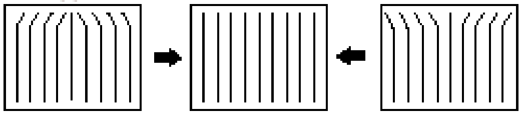
7 V SC



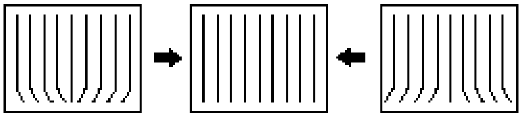
8 H-Parabola



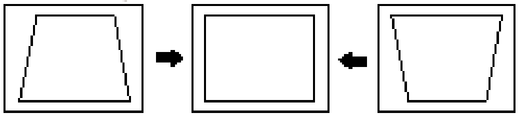
9 Upper Coner



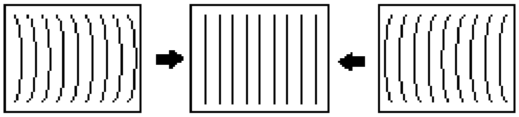
10 Low Coner



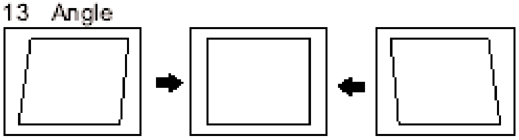
11 H- Trapezuim



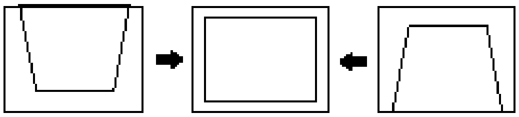
12 Bow



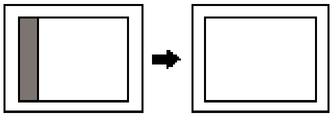
13 Angle



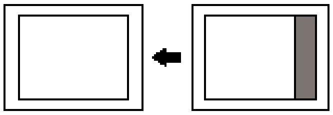
14 V Position



15 CXA Left BLK



16 CXA Right BLK



3. DTV DEFLECTION OFFSET(480P)

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	-63~63	2	2	0	Adjust
1	V Shift	-63~63	0	0	0	Adjust
2	H EW	-63~63	0	0	0	Adjust
3	H Shift	-63~63	0	0	0	Adjust
4	V Linearity	-15~15	0	0	0	Adjust
5	Upper Linearity	-15~15	0	0	0	FIX
6	Lower Linearity	-15~15	0	0	0	FIX
7	V SC	-15~15	0	0	0	FIX
8	H Parabola	-63~63	0	0	0	Adjust
9	Upper Corner	-63~63	0	0	0	Adjust
10	Lower Corner	-63~63	0	0	0	Adjust
11	H Trapezium	-63~63	0	0	0	Adjust
12	Bow	-63~63	0	0	0	Adjust
13	Angle	-63~63	0	0	0	Adjust
14	V Position	-63~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	-3~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	-3~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	-3~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	-3~3	0	0	0	FIX

4. DTV DEFLECTION OFFSET(576P)

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	-63~63	6	6	6	Adjust
1	V Shift	-63~63	-4	-4	-4	Adjust
2	H EW	-63~63	0	0	0	Adjust
3	H Shift	-63~63	0	0	0	Adjust
4	V Linearity	-15~15	0	0	0	Adjust
5	Upper Linearity	-15~15	0	0	0	FIX
6	Lower Linearity	-15~15	0	0	0	FIX
7	V SC	-15~15	0	0	0	FIX
8	H Parabola	-63~63	0	0	0	Adjust
9	Upper Corner	-63~63	0	0	0	Adjust
10	Lower Corner	-63~63	0	0	0	Adjust
11	H Trapezium	-63~63	3	3	8	Adjust
12	Bow	-63~63	0	0	0	Adjust
13	Angle	-63~63	0	0	0	Adjust
14	V Position	-63~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	-3~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	-3~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	-3~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	-3~3	0	0	0	FIX

5. DEFLECTION OFFSET(720P)

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	0	0	0	Adjust
1	V Shift	0~63	0	0	0	Adjust
2	H EW	0~63	0	0	0	Adjust
3	H Shift	0~63	0	0	0	Adjust
4	V Linearity	0~15	0	0	0	Adjust
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	0	0	0	FIX
7	V SC	0~15	0	0	0	FIX
8	H Parabola	0~63	0	0	0	Adjust
9	Upper Corner	0~63	0	0	0	Adjust
10	Lower Corner	0~63	0	0	0	Adjust
11	H Trapezium	0~63	0	0	0	Adjust
12	Bow	0~63	0	0	0	Adjust
13	Angle	0~63	0	0	0	Adjust
14	V Position	0~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	0~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	0~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	0~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	0~3	0	0	0	FIX

6. DEFLECTION OFFSET(1080I)

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	-15	-15	-15	Adjust
1	V Shift	0~63	-5	-5	-5	Adjust
2	H EW	0~63	4	4	4	Adjust
3	H Shift	0~63	-3	-3	-3	Adjust
4	V Linearity	0~15	0	0	0	Adjust
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	0	0	0	FIX
7	V SC	0~15	0	0	0	FIX
8	H Parabola	0~63	0	0	0	Adjust
9	Upper Corner	0~63	0	0	0	Adjust
10	Lower Corner	0~63	0	0	0	Adjust
11	H Trapezium	0~63	5	5	5	Adjust
12	Bow	0~63	0	0	0	Adjust
13	Angle	0~63	0	0	0	Adjust
14	V Position	0~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	0~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	0~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	0~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	0~3	0	0	0	FIX

7. 4:3 OFFSET_VIXLIM

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
1	H Parabola	-20~20	0	0	0	Adjust
2	Upper Corner	-20~20	0	0	0	Adjust
3	Lower Corner	-20~20	0	0	0	Adjust
4	Bow	-20~20	0	0	0	Adjust
5	Angle	-20~20	0	0	0	Adjust
6	H Shift	-20~20	0	0	0	Adjust
7	H Parabola NT	-20~20	0	0	0	Adjust
8	Upper Corner NT	-20~20	0	0	0	Adjust
9	Lower Corner NT	-20~20	0	0	0	Adjust
10	Bow NT	-20~20	0	0	0	Adjust
11	Angle NT	-20~20	0	0	0	Adjust
12	H Shift	-20~20	0	0	0	Adjust

8. VIDEO ADJUST 1

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	R CutOff	0~63	20	20	20	Adjust
1	G CutOff	0~63	20	20	20	FIX
2	B CutOff	0~63	20	20	20	Adjust
3	R Drive	0~63	32	32	32	Adjust
4	G Drive	0~63	32	32	32	FIX
5	B Drive	0~63	32	32	32	Adjust
6	Sub Bright	0~63	15	15	15	Adjust
7	Sub Contrast	0~15	9	9	9	Adjust
8	Bright VCTP	0~256	140	140	140	FIX
9	Contrast VCTP	0 ~ 63	28	28 → 30	30	FIX
10	SAT-VCTP	0 ~ 63	23	15 → 11	11	FIX
11	Tint VCTP	0 ~ 23	10	10	10	FIX
12	SC_RGB_ BRTADJ	-128 ~ 127	128	128	128	FIX
13	SC_RGB_ CONADJ	0 ~ 63	45	45	45	FIX
14	SC_RGB_ USATADJ	0 ~ 63	42	42 → 32	32	FIX
15	SC_RGB_ VSATADJ	0 ~ 63	42	42 → 32	32	FIX
16	RGB24_BRTADJ	0~255	14	16 → 14	14	FIX
17	RGB24_CONADJ	0 ~ 63	30	30	30	FIX
18	RGB24_ USATADJ	0 ~ 63	30	32 → 30	30	FIX
19	RGB24_ VSATADJ	0 ~ 63	30	32 → 30	30	FIX
20	RGB24_BR_HD	0~255	0	16 → 14	14	FIX
21	RGB24_CO_HD	0 ~ 63	30	30	30	FIX
22	RGB24_ USA_HD	0 ~ 63	30	32 → 30	30	FIX
23	RGB24_ VSA_HD	0 ~ 63	30	32 → 30	30	FIX

9. VIDEO ADJUST 2

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	ABL Mode	0~03	3	3	3	FIX
1	Gamma	0~03	0	0	2	FIX
2	ABL TH	0~15	14	14	3	FIX
3	AKB Time	0~31	15	15	15	FIX
4	S - ABL		3	3	3	FIX
5	P - ABL		6	9 → 6	9	FIX
6	VSU		0	0	0	FIX
7	LNA EXE	0 ~ 4	3	3	3	FIX
8	H_EHT comp	0~15	3	3	3	FIX
9	V_EHT comp	0~15	5	5	5	FIX
10	PIN EHT comp	0~07	3	2 → 3	3	FIX
11	AFC EHT comp	0~07	0	0	0	FIX
12	Sync Phase	0~1	0	0	0	FIX
13	Sync Phase (480)	0~1	1	1	1	FIX
14	Sync Phase (576P)	0~1	0	0	0	FIX
15	Sync Phase (720P)	0~1	1	1	1	FIX
16	Sync Phase (1080)	0~1	0	0	0	FIX

10. VIDEO ADJUST 3

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	TNR Enable	0 ~ 1	1	1	1	FIX
1	TNR Chroma	0 ~ 15	10	11	10	FIX
2	TNR Luma	0 ~ 15	11	11	7	FIX
3	LTI Enable	0 ~ 1	1	1	1	FIX
4	LTI Gain	0 ~ 15	15	15	15	FIX
5	LTI Gain x2	0 ~ 1	1	1	1	FIX
6	LTI Coring	0 ~ 7	2	3 → 2	3	FIX
7	Lmix gain		3	3	3	FIX
8	Lmix offset	0 ~ 31	13	12 → 13	13	FIX
9	Peak Center Freq	0~3	3	3	3	FIX
10	Peaking Coring	0 ~ 31	2	2	2	FIX
11	CTI BW	0 ~ 1	4	1 → 4	4	FIX
12	CTI LP	0 ~ 1	1	1	1	FIX
13	CTI Gain	0 ~ 15	5	5	5	FIX
14	CTI Coring	0 ~ 15	2	3 → 2	2	FIX
15	V Peaking	0 ~ 15	3	2 → 3	3	FIX
16	V Peak Coring gain	0~7	0	0	0	FIX
17	V Peak high gain	0~15	0	0	0	FIX
18	V Peak coring high	0~15	0	0	0	FIX
19	IF Comp Filter	0 ~ 7	4	4	4	FIX
20	DHYAPRESC	0~3	2	2	2	FIX
21	DHCAPRESC	0~3	2	2	2	FIX
22	Neg Peaking	0 ~ 15	11	11	11	FIX
23	DCE Gain	0~255	45	45	45	FIX
24	CORBP	0~1	0	0	0	FIX

11. VIDEO ADJUST 4

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	SVM RW	0 ~ 7	2	2	2	FIX
1	SVM Delay	0 ~ 7	0	0	0	FIX
2	SVM Coring	0 ~ 15	2	2	2	FIX
3	SVM Gain	0 ~ 63	45	45	45	FIX
4	SVM C_Gain	0 ~ 3	0	0	0	FIX
5	OSD Contrast	0 ~ 127	30	30	30	FIX
6	OSD Bright	-512 ~ 511	127	127	127	FIX
7	TTX Contrast	0 ~ 127	17	17	17	FIX
8	TTX Bright	`	127	127	127	FIX
9	Melody Volume	0 ~ 127	10	10	10	FIX
10	VCR Mode Cnt		30	30	30	FIX
11	SLLTHD		2	2	2	FIX
12	SLLTHDV		3	3	3	FIX
13	THRSEL		0	0	0	FIX
14	LPCDEL		0	0	0	FIX
15	Pilot High		13	13	13	FIX
16	Pilot Low		7	7	7	FIX
17	AM_Prescale		22	22	22	FIX

12. Video Adjust5 (60i/100i)

No	item	Range	PAL_RF	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
			Initial	Data	Data	
0	HORWIDTHP_H		5	5	5	
1	HORWIDTHP_L		50	50	50	FIX
2	VERIWDTHP_H		1	1	1	FIX
3	VERIWDTHP_L		26	26	26	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		65	65	65	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		29	29	29	FIX
8	NAPPLIP_H		2	2	2	FIX
9	NAPPLIP_L		94	94	94	FIX
10	NALPFIP_H		0	0	0	FIX
11	NALPFIP_L		18	18	18	FIX
12	HSCPOSC_H		8	8	8	FIX
13	HSCPOSC_L		70	70	70	FIX
14	VSCPOSC_H		31	31	31	FIX
15	VSCPOSC_L		100	100	100	FIX
16	HORWIDTH_M_H		5	5	5	FIX
17	HORWIDTH_M_L		50	50	50	FIX
18	VERWIDTH_M_H		1	1	1	FIX
19	VERWIDTH_M_L		39	39	39	FIX
20	HORPOS_M_H		1	1	1	FIX
21	HORPOS_M_L		60	60	60	FIX
22	VERPOS_M_H		0	0	0	FIX
23	VERPOS_M_L		23	23	23	FIX
24	VSCPRESC_H		0	0	0	FIX
25	VSCPRESC_L		0	0	0	FIX
26	SD_BRTADJ		128	128	128	FIX
27	SD_CONADJ		32	32	32	FIX
28	SD_USATADJ		32	32	32	FIX
29	SD_VSATADJ		32	32	32	FIX

13. Video Adjust5 (NTSC)

No	item	Range	NTSC	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
			Initial	Data	Data	
0	HORWIDTHP_H		5	5	5	
1	HORWIDTHP_L		75	75	75	FIX
2	VERIWDTHP_H		1	1	1	FIX
3	VERIWDTHP_L		235	235	235	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		50	50	50	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		30	30	30	FIX
8	NAPPLIP_H		2	2	2	FIX
9	NAPPLIP_L		18	18	18	FIX
10	NALPFIP_H		0	0	0	FIX
11	NALPFIP_L		10	10	10	FIX
12	HSCPOSC_H		8	8	8	FIX
13	HSCPOSC_L		45	45	45	FIX
14	VSCPOSC_H		12	12	12	FIX
15	VSCPOSC_L		20	20 → 80	20	FIX
16	HORWIDTH_M_H		5	5	5	FIX
17	HORWIDTH_M_L		88	88	88	FIX
18	VERWIDTH_M_H		2	2	2	FIX
19	VERWIDTH_M_L		5	5	5	FIX
20	HORPOS_M_H		1	1	1	FIX
21	HORPOS_M_L		30	30	30	FIX
22	VERPOS_M_H		0	0	0	FIX
23	VERPOS_M_L		10	10 → 15	10	FIX
24	VSCPRESC_H		4	4	4	FIX
25	VSCPRESC_L		0	0	0	FIX
26	SD_BRTADJ		128	128	128	FIX
27	SD_CONADJ		32	32	32	FIX
28	SD_USATADJ		32	32	32	FIX
29	SD_VSATADJ		32	32	32	FIX

14. Video Adjust5 (576i)

No	item	Range	576i	576i_32"	576i_29"	Remark
			Initial	Data	Data	
0	HORWIDTHP_H		5	5	5	
1	HORWIDTHP_L		50	50	50	FIX
2	VERIWDTHP_H		1	1	1	FIX
3	VERIWDTHP_L		30	30	30	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		65	65	65	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	NAPPLIP_H		1	1	1	FIX
9	NAPPLIP_L		176	176	176	FIX
10	NALPFIP_H		0	0	0	FIX
11	NALPFIP_L		16	16	16	FIX
12	HSCPOSC_H		8	8	8	FIX
13	HSCPOSC_L		125	125	125	FIX
14	VSCPOSC_H		31	31	31	FIX
15	VSCPOSC_L		100	100	100	FIX
16	HORWIDTH_M_H		5	5	5	FIX
17	HORWIDTH_M_L		50	50	50	FIX
18	VERWIDTH_M_H		1	1	1	FIX
19	VERWIDTH_M_L		38	38	38	FIX
20	HORPOS_M_H		1	1	1	FIX
21	HORPOS_M_L		55	55	55	FIX
22	VERPOS_M_H		0	0	0	FIX
23	VERPOS_M_L		23	23	23	FIX
24	VSCPRESC_H		0	0	0	FIX
25	VSCPRESC_L		0	0	0	FIX
26	SD_BRTADJ		146	145	145	
27	SD_CONADJ		46	45	45	
28	SD_USATADJ		32	52	52	
29	SD_VSATADJ		32	54	54	

15. Video Adjust5 (480i)

No	item	Range	480i	480i_32"	480i_29"	Remark
			Initial	Data	Data	
0	HORWIDTHP_H		5	5	5	
1	HORWIDTHP_L		48	48	48	FIX
2	VERIWDTHP_H		1	1	1	FIX
3	VERIWDTHP_L		246	246	246	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		60	60	60	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		21	21	21	FIX
8	NAPPLIP_H		1	1	1	FIX
9	NAPPLIP_L		101	101	101	FIX
10	NALPFIP_H		0	0	0	FIX
11	NALPFIP_L		16	16	16	FIX
12	HSCPOSC_H		8	8	8	FIX
13	HSCPOSC_L		125	125	125	FIX
14	VSCPOSC_H		12	12	12	FIX
15	VSCPOSC_L		0	0	0	FIX
16	HORWIDTH_M_H		5	5	5	FIX
17	HORWIDTH_M_L		48	48	48	FIX
18	VERWIDTH_M_H		1	1	1	FIX
19	VERWIDTH_M_L		241	241	241	FIX
20	HORPOS_M_H		1	1	1	FIX
21	HORPOS_M_L		41	41	41	FIX
22	VERPOS_M_H		0	0	0	FIX
23	VERPOS_M_L		24	24	24	FIX
24	VSCPRESC_H		4	4	4	FIX
25	VSCPRESC_L		0	0	0	FIX
26	SD_BRTADJ		146	146	146	FIX
27	SD_CONADJ		45	46 → 45	45	FIX
28	SD_USATADJ		52	32 → 52	52	FIX
29	SD_VSATADJ		52	32 → 52	52	FIX

16. Video Adjust6 (comp_HD)

No	item	Range	480P_HD	480P_HD_32"	480P_HD_29"	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	FIX
1	HORWIDTHP_L		45	45	45	FIX
2	VERWIDTHP_H		1	1	1	FIX
3	VERWIDTHP_L		226	226	226	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		104	104	104	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		11	11	11	FIX
9	DHSCPRESC_L		100	100	100	FIX
10	DNAPPLIP_H		1	1	1	FIX
11	DNAPPLIP_L		11	11	11	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		1	1	1	FIX
16	HORPOS_S_L		41	41	41	FIX
	HPULLINMODE		0	0	0	FIX
17	DVSCPOSC_HI		64	64	64	FIX
18	DVSCPOSC_LO_H		131	131	131	FIX
19	DVSCPOSC_LO_L		17	17	17	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		255	255	255	FIX
22	HD_BRTADJ		145	145	145	FIX
23	HD_CONADJ		45	47 → 45	45	FIX
24	HD_USATADJ		52	32 → 52	52	FIX
25	HD_VSATADJ		52	32 → 52	52	FIX

17. Video Adjust6 (comp_HD)

No	item	Range	576P_HD	576P_HD_32"	576P_HD_29"	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	FIX
1	HORWIDTHP_L		20	20	20	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		68	68	68	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		85	85	85	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		11	11	11	FIX
9	DHSCPRESC_L		210	210	210	FIX
10	DNAPPLIP_H		1	1	1	FIX
11	DNAPPLIP_L		35	35	35	FIX
12	DVOFPOSC		100	100	100	FIX
13	VERPOS_S		5	5	5	FIX
14	VEROFFS_S		6	6	6	FIX
15	HORPOS_S_H		1	1	1	FIX
16	HORPOS_S_L		1	1	1	FIX
	HPULLINMODE		0	0	0	FIX
17	DVSCPOSC_HI		64	64	64	FIX
18	DVSCPOSC_LO_H		66	66	66	FIX
19	DVSCPOSC_LO_L		203	203	203	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		215	215	215	FIX
22	HD_BRTADJ		146	145 → 146	146	FIX
23	HD_CONADJ		46	47 → 46	46	FIX
24	HD_USATADJ		53	32 → 53	53	FIX
25	HD_VSATADJ		54	32 → 54	54	FIX

18. Video Adjust6 (comp_HD)

No	item	Range	720P 50_HD	720P 50_HD_32"	720P 50_HD_29"	Remark
			intial	Data	Data	
0	HORWIDTHP_H		4	4	4	FIX
1	HORWIDTHP_L		226	226	226	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		125	125	125	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		50	50	50	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		2	2	2	FIX
9	DHSCPRESC_L		30	30	30	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		240	240	240	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		1	1	1	FIX
16	HORPOS_S_L		15	15	15	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		71	71	71	FIX
18	DVSCPOSC_LO_H		60	60	60	FIX
19	DVSCPOSC_LO_L		178	178	178	FIX
20	DHSCPOSC_HI		15	15	15	FIX
21	DHSCPOSC_LO		255	255	255	FIX
22	HD_BRTADJ		142	144 → 142	142	FIX
23	HD_CONADJ		50	50	50	FIX
24	HD_USATADJ		50	32 → 50	50	FIX
25	HD_VSATADJ		50	32 → 50	50	FIX

19. Video Adjust6 (comp_HD)

No	item	Range	720P 60_HD	720P 60_HD_32"	720P 60_HD_29"	Remark
			intial	Data	Data	
0	HORWIDTHP_H		4	4	4	FIX
1	HORWIDTHP_L		225	225	225	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		16	16	16	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		53	53	53	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		3	3	3	FIX
9	DHSCPRESC_L		210	210	210	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		214	214	214	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		24	24	24	FIX
14	VEROFFS_S		1	0 → 1	0	FIX
15	HORPOS_S_H		0	0	0	FIX
16	HORPOS_S_L		240	240	240	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		85	85	85	FIX
18	DVSCPOSC_LO_H		70	70 → 90	70	FIX
19	DVSCPOSC_LO_L		255	255	255	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		162	162	162	FIX
22	HD_BRTADJ		142	144 → 142	142	FIX
23	HD_CONADJ		50	50	50	FIX
24	HD_USATADJ		50	32 → 50	50	FIX
25	HD_VSATADJ		50	32 → 50	50	FIX

20. Video Adjust6 (comp_HD)

No	item	Range	1080i 50_HD	1080i 50_HD_32"	1080i 50_HD_29"	Remark
			intial	Data	Data	
0	HORWIDTHP_H		4	4	4	FIX
1	HORWIDTHP_L		220	220	220	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		129	129	129	FIX
4	HORPOSP_H		0	0	0	FIX
5	HORPOSP_L		250	250	250	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		15	15	15	FIX
9	DHSCPRESC_L		30	30	30	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		0	0	0	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		0	0	0	FIX
16	HORPOS_S_L		131	131	131	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		53	53	53	FIX
18	DVSCPOSC_LO_H		69	69	69	FIX
19	DVSCPOSC_LO_L		255	255	255	FIX
20	DHSCPOSC_HI		13	13	13	FIX
21	DHSCPOSC_LO		246	246	246	FIX
22	HD_BRTADJ		143	145 → 143	145 → 143	FIX
23	HD_CONADJ		49	49	49	FIX
24	HD_USATADJ		50	32 → 50	32 → 50	FIX
25	HD_VSATADJ		50	32 → 50	32 → 50	FIX

21. Video Adjust6 (comp_HD)

No	item	Range	1080i 60_HD	1080i 60_HD_32"	1080i 60_HD_29"	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	FIX
1	HORWIDTHP_L		30	30	30	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		17	17	17	FIX
4	HORPOSP_H		0	0	0	FIX
5	HORPOSP_L		180	180	180	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		14	14	14	FIX
9	DHSCPRESC_L		130	130	130	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		100	100	100	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		0	0	0	FIX
16	HORPOS_S_L		190	190	190	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		64	64	64	FIX
18	DVSCPOSC_LO_H		0	0	0	FIX
19	DVSCPOSC_LO_L		183	183	183	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		66	66	66	FIX
22	HD_BRTADJ		143	145 → 143	145 → 143	FIX
23	HD_CONADJ		49	49	49	FIX
24	HD_USATADJ		50	32 → 50	32 → 50	FIX
25	HD_VSATADJ		50	32 → 50	32 → 50	FIX

22. VIDEO ADJUST 7(color tone setting)

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	R drive offset Warm2	-20~+20	3	3 → 8	8	FIX
1	B drive offset Warm2	-20~+20	-9	-9	-9	FIX
2	R cutoff offset Warm2	-20~+20	6	6	6	FIX
3	B cutoff offset Warm2	-20~+20	-11	-11	-11	FIX
4	R drive offset Warm1	-20~+20	2	2 → 4	4	FIX
5	B drive offset Warm1	-20~+20	-2	-2 → -3	-3	FIX
6	R cutoff offset Warm1	-20~+20	3	3 → 4	4	FIX
7	B cutoff offset Warm1	-20~+20	-2	-2 → -3	-3	FIX
8	R drive offset Normal	-20~+20	0	0	0	FIX
9	B drive offset Normal	-20~+20	0	0	0	FIX
10	R cutoff offset Normal	-20~+20	0	0	0	FIX
11	B cutoff offset Normal	-20~+20	0	0	0	FIX
12	R drive offset Cool 1	-20~+20	0	0 → -5	-5	FIX
13	B drive offset Cool 1	-20~+20	4	4	4	FIX
14	R cutoff offset Cool 1	-20~+20	2	2 → 0	0	FIX
15	B cutoff offset Cool 1	-20~+20	6	6	6	FIX
16	R drive offset Cool 2	-20~+20	-2	-2	-2	FIX
17	B drive offset Cool 2	-20~+20	6	6	6	FIX
18	R cutoff offset Cool 2	-20~+20	0	0	0	FIX
19	B cutoff offset Cool 2	-20~+20	9	9	9	FIX

23. VIDEO ADJUST8

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	LTI Gain NTSC	NT RF	15	15	15	FIX
1	Peak_f0_NTSC	NT RF	3	3	3	
2	Peak_cor_NTSC	NT RF	2	2	2	FIX
3	CTI_gain_NTSC	NT RF	5	5	5	FIX
4	Lmix gain_NTSC	NT RF	3	3	3	FIX
5	Lmix offset_NT	NT RF	13	13	13	FIX
6	LTI Gain AV	AV(CVBS)	15	15	15	FIX
7	Peak_f0_AV	AV(CVBS)	3	3	3	FIX
8	Peak_cor_AV	AV(CVBS)	2	2	2	FIX
9	CTI_gain_AV	AV(CVBS)	5	5	5	FIX
10	Lmix gain_AV	AV(CVBS)	6	3	3	FIX
11	Lmix offset_AV	AV(CVBS)	13	13	13	FIX
12	LTI Gain SD	DVD,480P,576P	15	15	15	FIX
13	Peak_f0_SD	DVD,480P,576P	0	0	0	FIX
14	Peak_cor_SD	DVD,480P,576P	2	2	2	FIX
15	CTI_gain_SD	DVD,480P,576P	5	0 → 5	5	FIX
16	Lmix gain_SD	DVD,480P,576P	3	3	3	FIX
17	Lmix offset_SD	DVD,480P,576P	13	13	13	FIX
18	LTI Gain HD	720P,1080I	15	15	15	FIX
19	Peak_f0_ HD	720P,1080I	3	3	3	FIX
20	Peak_cor_ HD	720P,1080I	2	2	2	FIX
21	CTI_gain_ HD	720P,1080I	5	5	5	FIX
22	Lmix gain_ HD	720P,1080I	3	3	3	FIX
23	Lmix offset_ HD	720P,1080I	13	13	13	FIX

24. YC Delay

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	P.YC (AV) Delay	-8 ~ 7	4	4	4	FIX
1	S.YC (AV) Delay	-8 ~ 7	0	0	0	FIX
2	N.YC (AV) Delay	-8 ~ 7	1	1	1	FIX
3	P.BG.YC Delay	-8 ~ 7	4	4	4	FIX
4	P.DK.YC Delay	-8 ~ 7	4	4	4	FIX
5	P.I.YC Delay	-8 ~ 7	2	2	2	FIX
6	P.M.YC Delay	-8 ~ 7	0	0	0	FIX
7	P.L.YC Delay	-8 ~ 7	3	3	3	FIX
8	S.BG.YC Delay	-8 ~ 7	-1	-1	-1	FIX
9	S.DK.YC Delay	-8 ~ 7	-1	-1	-1	FIX
10	S.I.YC Delay	-8 ~ 7	-2	-2	-2	FIX
11	S.M.YC Delay	-8 ~ 7	0	0	0	FIX
12	S.L.YC Delay	-8 ~ 7	0	0	0	FIX
13	N.M.YC Delay	-8 ~ 7	-1	-1	-1	FIX
14	SD YFDEL	0 ~ 127	60	60	60	FIX
15	SD_UVDEL	0 ~ 127	60	60	60	FIX
16	RGB Y_Delay	0 ~ 127	118	118	118	FIX
17	RGB UV_Delay	0 ~ 127	118	118	118	FIX
18	HD_DELB	0 ~ 3	0	0	0	FIX
19	HD_DELG	0 ~ 3	0	0	0	FIX
20	HD_DELR	0 ~ 3	0	0	0	FIX

25. EEPROM

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
0	System		1	1	1	FIX
1	System_480		2	2	2	FIX
2	System_1080		3	3	3	FIX
3	Dynamic Contrast		90	100	90	FIX
4	Dynamic Brightness		50	40	50	FIX
5	Dynamic Shapness		75	65	75	FIX
6	Dynamic Color		50	50	50	FIX
7	Dynamic Tint		50	50	50	FIX
8	Dynamic Color Tone		2	2	2	FIX
9	Standard Contrast		70	70	70	FIX
10	Standard Brightness		50	50	50	FIX
11	Standard Shapness		50	50	50	FIX
12	Standard Color		45	45	45	FIX
13	Standard Tint		50	50	50	FIX
14	Standard Color Tone		2	2	2	FIX
15	Movie Contrast		50	50	50	FIX
16	Movie Brightness		50	50	50	FIX
17	Movie Shapness		40	40	40	FIX
18	Movie Color		40	40	40	FIX
19	Movie Tint		50	50	50	FIX
20	Movie Color Tone		4	4	4	FIX
21	Left _Blank		17	17	17	FIX
22	Right_Blank		25	25	25	FIX
23	Left Blanking (480)		25	25	25	FIX
24	Right Blanking (480)		25	25	25	FIX
25	Left Blanking (720)		44	44	44	FIX
26	Right Blanking (720)		25	25	25	FIX
27	Left Blanking (1080)		44	44	44	FIX
28	Right Blanking (1080)		25	25	25	FIX
29	RGB Tint	0 ~ 127	0	0	0	FIX
30	DVD Tint	0 ~ 127	0	0	0	FIX
31	Bypass Deint	0 ~ 1	0	0	0	FIX
32	SLMCSW	0 ~ 1	1	1	1	FIX
33	DCE Gain		30	30	30	FIX
34	TTX V-Position		41	41	41	FIX
35	TTX H-Position		222	222	222	FIX
36			255	255	255	FIX
37	37~64 not available		4	4	4	FIX
38	VIDEO ADJUST6 1080I 50		220	220	220	FIX
39			2	2	2	FIX
40			129	129	129	FIX
41			0	0	0	FIX
42	-		250	250	250	FIX
43	-		0	0	0	FIX
44	-		26	26	26	FIX
45	-		15	15	15	FIX

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
46	System		30	30	30	FIX
47	System_480		0	0	0	FIX
48	System_1080		0	0	0	FIX
49	Dynamic Contrast		128	128	128	FIX
50	Dynamic Brightness		6	6	6	FIX
51	Dynamic Shapness		0	0	0	FIX
52	Dynamic Color		0	0	0	FIX
53	Dynamic Tint		131	131	131	FIX
54	Dynamic Color Tone		1	1	1	FIX
55	Standard Contrast		53	53	53	FIX
56	Standard Brightness		69	69	69	FIX
57	Standard Shapness		255	255	255	FIX
58	Standard Color		13	13	13	FIX
59	Standard Tint		246	246	246	FIX
60	Standard Color Tone		145	145	145	FIX
61	Movie Contrast		49	49	49	FIX
62	Movie Brightness		32	32	32	FIX
63	Movie Shapness		32	32	32	FIX
64	Movie Color		-1	-1	-1	
65	Movie Tint		-1	-1	-1	
66	Movie Color Tone		-1	-1	-1	
67	Left _Blank		-1	-1	-1	
68	Right_Blank	0~3	1	1	1	FIX
69	Left Blanking (480)	0~3	2	2	2	FIX
70	Right Blanking (480)	0~63	45	45	45	FIX
71	Left Blanking (720)		0	0	0	
72	Right Blanking (720)		15	15	15	FIX
73	Left Blanking (1080)		16	16	16	FIX
74	Right Blanking (1080)		30	30	30	FIX
75	RGB Tint		32	32	32	FIX
76	DVD Tint		32	32	32	FIX
77	Bypass Deint		255	255	255	FIX
78	SLMCSW	0~255	255	255	255	FIX
79	DCE Gain	0~255	255	255	255	FIX
80	TTX V-Position	-20~+20	0	0	0	FIX
81	TTX H-Position	-20~+20	0	0	0	FIX
82		-20~+20	7	7	7	FIX
83	37~64 not available	-20~+20	6	6	6	FIX
84	VIDEO ADJUST6 1080I 50	-20~+20	0	0	0	FIX
85		-20~+20	0	0	0	FIX
86		-20~+20	7	7	7	FIX
87		-20~+20	6	6	6	FIX
88	-	-20~+20	0	0	0	FIX
89	-	-20~+20	0	0	0	FIX
90	-	-20~+20	0	7	7	FIX
91	-	-20~+20	7	6	6	FIX

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
92	R drive offset 720P-50HZ	-20~+20	6	0	0	FIX
93	G drive offset 720P-50HZ	-20~+20	0	0	0	FIX
94	R cutoff offset 720P-50HZ	-20~+20	7	7	7	FIX
95	G cutoff offset 720P-50HZ	-20~+20	6	6	6	FIX
96	R drive offset 480P	-20~+20	0	0	0	FIX
97	G drive offset 480P	-20~+20	0	0	0	FIX
98	R cutoff offset 480P	-20~+20	0	0	0	FIX
99	G cutoff offset 480P	-20~+20	0	0	0	FIX
100	R drive offset 576P	-20~+20	0	0	0	FIX
101	G drive offset 576P	-20~+20	0	0	0	FIX
102	R cutoff offset 576P	-20~+20	0	0	0	FIX
103	G cutoff offset 576P	-20~+20	0	0	0	FIX
104	R drive offset 480i	-20~+20	0	0	0	FIX
105	G drive offset 480i	-20~+20	0	0	0	FIX
106	R cutoff offset 480i	-20~+20	0	0	0	FIX
107	G cutoff offset 480i	-20~+20	0	0	0	FIX
108	R drive offset 576i	-20~+20	0	0	0	FIX
109	G drive offset 576i	-20~+20	0	0	0	FIX
110	R cutoff offset 576i	-20~+20	0	0	0	FIX
111	G cutoff offset 576i	-20~+20	0	0	0	FIX
112	H_EHT comp_720p		1	1	1	
113	V_EHT comp_720p		5	5	5	
114	PIN EHT comp_720p		1	1	1	
115	ABL TH_1080i		3	3	3	
116	Color On_NTSC		2	2	2	
117	Color Killer Threshold_NTSC		210	210	210	
118	ACC Limitation_NTSC		16	16	16	
119	Color Killer Threshold_AV		230	230	230	
120	120~146 not available		4			
146	VIDEO ADJUST6 720P50		226			
148	148~166 not available		2			
166	NTSC DEFLECTION		125			
168	168~186 not available		1			
186	480P DEFLECTION		50			
187	187~205 not available		0			
205	576P DEFLECTION		26			
206	206~224 not available		2			
224	720P DEFLECTION		30			
225	225~243 not available		0			
243	1080I DEFLECTION		240			
244	PIP CONT	0~255	128	128	128	FIX
245	PIP-Bright	0~255	245	245	245	FIX
246	PIP-SCURVE	0~1	1	1	1	FIX
247	PIP-CTI	0~3	2	2	2	FIX
248	PIP-Sharp	0~7	0	0	5	FIX
249	PIP-Tint	0~255	0	0	0	FIX

No	item	Range	intial	WS32Z30/40 (32")	CW29Z30/40 (29")	Remark
				Data	Data	
250			21	21	21	
251			255	255	255	
252			255	255	255	
253			0	0	0	
254			0	0	0	
255	HD_P-ABL		9	9	9	FIX

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1. DEFLECTION(PAL)

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	30	30	34	Adjust
1	V Shift	0~63	26	26	27	Adjust
2	H EW	0~63	30	30	21	Adjust
3	H Shift	0~63	36	36	42	Adjust
4	V Linearity	0~15	6	6	6	FIX
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	1	1	1	FIX
7	V SC	0~15	3	3	6	FIX
8	H Parabola	0~63	32	32	48	Adjust
9	Upper Corner	0~63	37	37	38	Adjust
10	Lower Corner	0~63	34	34	35	Adjust
11	H Trapezium	0~63	40	40	37	Adjust
12	Bow	0~63	32	32	34	Adjust
13	Angle	0~63	30	30	28	Adjust
14	V Position	0~63	32	32	32	FIX
15	UP-UCG (Up Corner Semi Control)	-3~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	-3~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	-3~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	-3~3	0	0	0	FIX

2. DEFLECTION(NTSC)

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	-4	-4	-6	Adjust
1	V Shift	0~63	-3	-3	-3	Adjust
2	H EW	0~63	0	0	-2	Adjust
3	H Shift	0~63	-3	-3	0	Adjust
4	V Linearity	0~15	0	0	0	Adjust
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	0	0	0	FIX
7	V SC	0~15	0	0	0	FIX
8	H Parabola	0~63	0	0	0	Adjust
9	Upper Corner	0~63	0	0	0	Adjust
10	Lower Corner	0~63	0	0	0	Adjust
11	H Trapezium	0~63	4	4	4	Adjust
12	Bow	0~63	0	0	0	Adjust
13	Angle	0~63	0	0	0	Adjust
14	V Position	0~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	-3~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	-3~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	-3~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	-3~3	0	0	0	FIX

3. DTV DEFLECTION OFFSET(480P)

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	-63~63	2	2	0	Adjust
1	V Shift	-63~63	0	0	0	Adjust
2	H EW	-63~63	0	0	0	Adjust
3	H Shift	-63~63	0	0	0	Adjust
4	V Linearity	-15~15	0	0	0	Adjust
5	Upper Linearity	-15~15	0	0	0	FIX
6	Lower Linearity	-15~15	0	0	0	FIX
7	V SC	-15~15	0	0	0	FIX
8	H Parabola	-63~63	0	0	0	Adjust
9	Upper Corner	-63~63	0	0	0	Adjust
10	Lower Corner	-63~63	0	0	0	Adjust
11	H Trapezium	-63~63	0	0	0	Adjust
12	Bow	-63~63	0	0	0	Adjust
13	Angle	-63~63	0	0	0	Adjust
14	V Position	-63~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	-3~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	-3~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	-3~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	-3~3	0	0	0	FIX

4. DTV DEFLECTION OFFSET(576P)

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	-63~63	6	6	-2	Adjust
1	V Shift	-63~63	-4	-4	-4	Adjust
2	H EW	-63~63	0	0	-3	Adjust
3	H Shift	-63~63	0	0	4	Adjust
4	V Linearity	-15~15	0	0	0	Adjust
5	Upper Linearity	-15~15	0	0	0	FIX
6	Lower Linearity	-15~15	0	0	0	FIX
7	V SC	-15~15	0	0	0	FIX
8	H Parabola	-63~63	0	0	0	Adjust
9	Upper Corner	-63~63	0	0	0	Adjust
10	Lower Corner	-63~63	0	0	0	Adjust
11	H Trapezium	-63~63	3	3	8	Adjust
12	Bow	-63~63	0	0	0	Adjust
13	Angle	-63~63	0	0	0	Adjust
14	V Position	-63~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	-3~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	-3~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	-3~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	-3~3	0	0	0	FIX

5. DEFLECTION OFFSET(720P)

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	0	0	0	Adjust
1	V Shift	0~63	0	0	0	Adjust
2	H EW	0~63	0	0	0	Adjust
3	H Shift	0~63	0	0	0	Adjust
4	V Linearity	0~15	0	0	0	Adjust
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	0	0	0	FIX
7	V SC	0~15	0	0	0	FIX
8	H Parabola	0~63	0	0	0	Adjust
9	Upper Corner	0~63	0	0	0	Adjust
10	Lower Corner	0~63	0	0	0	Adjust
11	H Trapezium	0~63	0	0	0	Adjust
12	Bow	0~63	0	0	0	Adjust
13	Angle	0~63	0	0	0	Adjust
14	V Position	0~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	0~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	0~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	0~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	0~3	0	0	0	FIX

6. DEFLECTION OFFSET(1080I)

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	V Amp	0~63	-15	-15	-15	Adjust
1	V Shift	0~63	-5	-5	-5	Adjust
2	H EW	0~63	4	4	4	Adjust
3	H Shift	0~63	-3	-3	-3	Adjust
4	V Linearity	0~15	0	0	0	Adjust
5	Upper Linearity	0~15	0	0	0	FIX
6	Lower Linearity	0~15	0	0	0	FIX
7	V SC	0~15	0	0	0	FIX
8	H Parabola	0~63	0	0	0	Adjust
9	Upper Corner	0~63	0	0	0	Adjust
10	Lower Corner	0~63	0	0	0	Adjust
11	H Trapezium	0~63	5	5	5	Adjust
12	Bow	0~63	0	0	0	Adjust
13	Angle	0~63	0	0	0	Adjust
14	V Position	0~63	0	0	0	FIX
15	UP-UCG (Up Corner Semi Control)	0~3	0	0	0	FIX
16	LO-UCG (Low Corner Semi Control)	0~3	0	0	0	FIX
17	UP-UCP (Up Corner posiotion Control)	0~3	0	0	0	FIX
18	LO-UCP (Low Corner posiotion Control)	0~3	0	0	0	FIX

7. 4:3 OFFSET_VIXLIM

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
1	H Parabola	-20~20	0	0	0	Adjust
2	Upper Corner	-20~20	0	0	1	Adjust
3	Lower Corner	-20~20	0	0	2	Adjust
4	Bow	-20~20	0	0	3	Adjust
5	Angle	-20~20	0	0	4	Adjust
6	H Shift	-20~20	0	0	5	Adjust
7	H Parabola NT	-20~20	0	0	6	Adjust
8	Upper Corner NT	-20~20	0	0	7	Adjust
9	Lower Corner NT	-20~20	0	0	8	Adjust
10	Bow NT	-20~20	0	0	9	Adjust
11	Angle NT	-20~20	0	0	10	Adjust
12	H Shift	-20~20	0	0	11	Adjust

8. VIDEO ADJUST 1

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	R CutOff	0~63	20	20	20	Adjust
1	G CutOff	0~63	20	20	20	FIX
2	B CutOff	0~63	20	20	20	Adjust
3	R Drive	0~63	32	32	32	Adjust
4	G Drive	0~63	32	32	32	FIX
5	B Drive	0~63	32	32	32	Adjust
6	Sub Bright	0~63	15	15	15	Adjust
7	Sub Contrast	0~15	9	9	9	Adjust
8	Bright VCTP	0~256	140	140	140	FIX
9	Contrast VCTP	0 ~ 63	28	30	30	FIX
10	SAT-VCTP	0 ~ 63	23	11	11	FIX
11	Tint VCTP	0 ~ 23	10	10	10	FIX
12	RGB Bright	-128 ~ 127	128	128	128	FIX
13	RGB Contrast	0 ~ 63	45	45	45	FIX
14	RGB U_Sat	0 ~ 63	42	32	32	FIX
15	RGB V_Sat	0 ~ 63	42	32	32	FIX
16	RGB24_BRTADJ	0~255	14	14	14	FIX
17	RGB24_CONADJ	0 ~ 63	30	30	30	FIX
18	RGB24_ USATADJ	0 ~ 63	30	30	30	FIX
19	RGB24_ VSATADJ	0 ~ 63	30	30	30	FIX
20	RGB24_BR_HD	0~255	14	14	14	FIX
21	RGB24_CO_HD	0 ~ 63	30	30	30	FIX
22	RGB24_ USA_HD	0 ~ 63	30	30	30	FIX
23	RGB24_ VSA_HD	0 ~ 63	30	30	30	FIX

9. VIDEO ADJUST 2

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	ABL Mode	0~03	3	3	3	FIX
1	Gamma	0~03	0	0	2	FIX
2	ABL TH	0~15	14	14	3	FIX
3	AKB Time	0~31	15	15	15	FIX
4	S - ABL		3	3	3	FIX
5	P - ABL		6	6	9	FIX
6	VSU		0	0	0	FIX
7	LNA EXE	0 ~ 4	3	3	3	FIX
8	H_EHT comp	0~15	3	3	3	FIX
9	V_EHT comp	0~15	5	5	5	FIX
10	PIN EHT comp	0~07	3	3	3	FIX
11	AFC EHT comp	0~07	0	0	0	FIX
12	Sync Phase	0~1	0	0	0	FIX
13	Sync Phase (480)	0~1	1	1	1	FIX
14	Sync Phase (576P)	0~1	0	0	0	FIX
15	Sync Phase (720P)	0~1	1	1	1	FIX
16	Sync Phase (1080)	0~1	0	0	0	FIX

10. VIDEO ADJUST 3

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	TNR Enable	0 ~ 1	1	1	1	FIX
1	TNR Chroma	0 ~ 15	10	11	10	FIX
2	TNR Luma	0 ~ 15	11	11	7	FIX
3	LTI Enable	0 ~ 1	1	1	1	FIX
4	LTI Gain	0 ~ 15	15	15	15	FIX
5	LTI Gain x2	0 ~ 1	1	1	1	FIX
6	LTI Coring	0 ~ 7	2	2	3	FIX
7	Lmix gain		3	3	3	FIX
8	Lmix offset	0 ~ 31	13	13	13	FIX
9	Peak Center Freq	0~3	3	3	3	FIX
10	Peaking Coring	0 ~ 31	2	2	2	FIX
11	CTI BW	0 ~ 1	1	4 → 1	1	FIX
12	CTI LP	0 ~ 1	1	1	1	FIX
13	CTI Gain	0 ~ 15	5	5	5	FIX
14	CTI Coring	0 ~ 15	2	2	2	FIX
15	V Peaking	0 ~ 15	3	3	3	FIX
16	V Peak Coring gain	0~7	0	0	0	FIX
17	V Peak high gain	0~15	0	0	0	FIX
18	V Peak coring high	0~15	0	0	0	FIX
19	IF Comp Filter	0 ~ 7	4	4	4	FIX
20	DHYAPRESC	0~3	2	2	2	FIX
21	DHCAPRESC	0~3	2	2	2	FIX
22	Neg Peaking	0 ~ 7	11	11	11	FIX
23	DCE Gain	0~255	45	45	45	FIX
24	CORBP	0~1	0	0	0	FIX

11. VIDEO ADJUST 4

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	SVM RW	0 ~ 7	2	2	2	FIX
1	SVM Delay	0 ~ 7	0	0	0	FIX
2	SVM Coring	0 ~ 15	2	2	2	FIX
3	SVM Gain	0 ~ 63	45	45	45	FIX
4	SVM C_Gain	0 ~ 3	0	0	0	FIX
5	OSD Contrast	0 ~ 127	30	30	30	FIX
6	OSD Bright	-512 ~ 511	127	127	127	FIX
7	TTX Contrast	0 ~ 127	17	17	17	FIX
8	TTX Bright	-512 ~ 511	127	127	127	FIX
9	Melody Volume	0 ~ 127	10	10	10	FIX
10	VCR Mode Cnt		30	30	30	FIX
11	SLLTHD		2	2	2	FIX
12	SLLTHDV		3	3	3	FIX
13	THRSEL		0	0	0	FIX
14	LPCDEL		0	0	0	FIX
15	Pilot High		13	13	13	FIX
16	Pilot Low		7	7	7	FIX
17	AM_Prescale		22	22	22	FIX

12. Video Adjust5 (60i/100i)

No	item	Range	PAL_RF	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	
1	HORWIDTHP_L		50	50	50	FIX
2	VERIWDTHP_H		1	1	1	FIX
3	VERIWDTHP_L		26	26	26	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		65	65	65	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		29	29	29	FIX
8	NAPPLIP_H		2	2	2	FIX
9	NAPPLIP_L		94	94	94	FIX
10	NALPFIP_H		0	0	0	FIX
11	NALPFIP_L		18	18	18	FIX
12	HSCPOSC_H		8	8	8	FIX
13	HSCPOSC_L		70	70	70	FIX
14	VSCPOSC_H		31	31	31	FIX
15	VSCPOSC_L		100	100	100	FIX
16	HORWIDTH_M_H		5	5	5	FIX
17	HORWIDTH_M_L		50	50	50	FIX
18	VERWIDTH_M_H		1	1	1	FIX
19	VERWIDTH_M_L		39	39	39	FIX
20	HORPOS_M_H		1	1	1	FIX
21	HORPOS_M_L		60	60	60	FIX
22	VERPOS_M_H		0	0	0	FIX
23	VERPOS_M_L		23	23	23	FIX
24	VSCPRESC_H		0	0	0	FIX
25	VSCPRESC_L		0	0	0	FIX
26	SD_BRTADJ		128	128	128	FIX
27	SD_CONADJ		32	32	32	FIX
28	SD_USATADJ		32	32	32	FIX
29	SD_VSATADJ		32	32	32	FIX

13. Video Adjust5 (NTSC)

No	item	Range	NTSC	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	
1	HORWIDTHP_L		75	75	75	FIX
2	VERIWDTHP_H		1	1	1	FIX
3	VERIWDTHP_L		235	235	235	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		50	50	50	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		30	30	30	FIX
8	NAPPLIP_H		2	2	2	FIX
9	NAPPLIP_L		18	18	18	FIX
10	NALPFIP_H		0	0	0	FIX
11	NALPFIP_L		10	10	10	FIX
12	HSCPOSC_H		8	8	8	FIX
13	HSCPOSC_L		45	45	45	FIX
14	VSCPOSC_H		12	12	12	FIX
15	VSCPOSC_L		20	80	20	FIX
16	HORWIDTH_M_H		5	5	5	FIX
17	HORWIDTH_M_L		88	88	88	FIX
18	VERWIDTH_M_H		2	2	2	FIX
19	VERWIDTH_M_L		5	5	5	FIX
20	HORPOS_M_H		1	1	1	FIX
21	HORPOS_M_L		30	30	30	FIX
22	VERPOS_M_H		0	0	0	FIX
23	VERPOS_M_L		10	15	10	FIX
24	VSCPRESC_H		4	4	4	FIX
25	VSCPRESC_L		0	0	0	FIX
26	SD_BRTADJ		128	128	128	FIX
27	SD_CONADJ		32	32	32	FIX
28	SD_USATADJ		32	32	32	FIX
29	SD_VSATADJ		32	32	32	FIX

14. Video Adjust5 (576i)

No	item	Range	576i	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	5
1	HORWIDTHP_L		50	50	50	5
2	VERIWDTHP_H		1	1	1	50
3	VERIWDTHP_L		30	30	30	50
4	HORPOSP_H		1	1	1	1
5	HORPOSP_L		65	65	65	1
6	VERPOSP_H		0	0	0	30
7	VERPOSP_L		26	26	26	30
8	NAPPLIP_H		1	1	1	1
9	NAPPLIP_L		176	176	176	1
10	NALPFIP_H		0	0	0	65
11	NALPFIP_L		16	16	16	65
12	HSCPOSC_H		8	8	8	0
13	HSCPOSC_L		125	125	125	0
14	VSCPOSC_H		31	31	31	26
15	VSCPOSC_L		100	100	100	26
16	HORWIDTH_M_H		5	5	5	1
17	HORWIDTH_M_L		50	50	50	1
18	VERWIDTH_M_H		1	1	1	176
19	VERWIDTH_M_L		38	38	38	176
20	HORPOS_M_H		1	1	1	0
21	HORPOS_M_L		55	55	55	0
22	VERPOS_M_H		0	0	0	16
23	VERPOS_M_L		23	23	23	16
24	VSCPRESC_H		0	0	0	8
25	VSCPRESC_L		0	0	0	8
26	SD_BRTADJ		145	145	145	125
27	SD_CONADJ		45	45	45	125
28	SD_USATADJ		52	52	52	31
29	SD_VSATADJ		54	54	54	31

15. Video Adjust5 (480i)

No	item	Range	480i	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	
1	HORWIDTHP_L		48	48	48	FIX
2	VERIWDTHP_H		1	1	1	FIX
3	VERIWDTHP_L		246	246	246	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		60	60	60	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		21	21	21	FIX
8	NAPPLIP_H		1	1	1	FIX
9	NAPPLIP_L		101	101	101	FIX
10	NALPFIP_H		0	0	0	FIX
11	NALPFIP_L		16	16	16	FIX
12	HSCPOSC_H		8	8	8	FIX
13	HSCPOSC_L		125	125	125	FIX
14	VSCPOSC_H		12	12	12	FIX
15	VSCPOSC_L		0	0	0	FIX
16	HORWIDTH_M_H		5	5	5	FIX
17	HORWIDTH_M_L		48	48	48	FIX
18	VERWIDTH_M_H		1	1	1	FIX
19	VERWIDTH_M_L		241	241	241	FIX
20	HORPOS_M_H		1	1	1	FIX
21	HORPOS_M_L		41	41	41	FIX
22	VERPOS_M_H		0	0	0	FIX
23	VERPOS_M_L		24	24	24	FIX
24	VSCPRESC_H		4	4	4	FIX
25	VSCPRESC_L		0	0	0	FIX
26	SD_BRTADJ		146	146	146	FIX
27	SD_CONADJ		45	45	45	FIX
28	SD_USATADJ		52	52	52	FIX
29	SD_VSATADJ		52	52	52	FIX

16. Video Adjust6 (comp_HD)

No	item	Range	480P_HD	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	FIX
1	HORWIDTHP_L		45	45	45	FIX
2	VERWIDTHP_H		1	1	1	FIX
3	VERWIDTHP_L		226	226	226	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		104	104	104	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		11	11	11	FIX
9	DHSCPRESC_L		100	100	100	FIX
10	DNAPPLIP_H		1	1	1	FIX
11	DNAPPLIP_L		11	11	11	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		1	1	1	FIX
16	HORPOS_S_L		41	41	41	FIX
	HPULLINMODE		0	0	0	FIX
17	DVSCPOSC_HI		64	64	64	FIX
18	DVSCPOSC_LO_H		131	131	131	FIX
19	DVSCPOSC_LO_L		17	17	17	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		255	255	255	FIX
22	HD_BRTADJ		145	145	145	FIX
23	HD_CONADJ		45	45	45	FIX
24	HD_USATADJ		52	52	52	FIX
25	HD_VSATADJ		52	52	52	FIX

17. Video Adjust6 (comp_HD)

No	item	Range	576P_HD	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	FIX
1	HORWIDTHP_L		20	20	20	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		68	68	68	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		85	85	85	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		11	11	11	FIX
9	DHSCPRESC_L		210	210	210	FIX
10	DNAPPLIP_H		1	1	1	FIX
11	DNAPPLIP_L		35	35	35	FIX
12	DVOFPOSC		100	100	100	FIX
13	VERPOS_S		5	5	5	FIX
14	VEROFFS_S		6	6	6	FIX
15	HORPOS_S_H		0	0	1	FIX
16	HORPOS_S_L		255	255	1	FIX
	HPULLINMODE		0	0	0	FIX
17	DVSCPOSC_HI		64	64	64	FIX
18	DVSCPOSC_LO_H		66	66	66	FIX
19	DVSCPOSC_LO_L		203	203	203	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		215	215	215	FIX
22	HD_BRTADJ		146	146	146	FIX
23	HD_CONADJ		46	46	46	FIX
24	HD_USATADJ		53	53	53	FIX
25	HD_VSATADJ		54	54	54	FIX

18. Video Adjust6 (comp_HD)

No	item	Range	720P 50_HD	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		4	4	4	FIX
1	HORWIDTHP_L		226	226	226	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		125	125	125	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		50	50	50	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		2	2	2	FIX
9	DHSCPRESC_L		30	30	30	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		240	240	240	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		1	1	1	FIX
16	HORPOS_S_L		15	15	15	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		71	71	71	FIX
18	DVSCPOSC_LO_H		60	60	60	FIX
19	DVSCPOSC_LO_L		178	178	178	FIX
20	DHSCPOSC_HI		15	15	15	FIX
21	DHSCPOSC_LO		255	255	255	FIX
22	HD_BRTADJ		142	142	142	FIX
23	HD_CONADJ		50	50	50	FIX
24	HD_USATADJ		50	50	50	FIX
25	HD_VSATADJ		50	50	50	FIX

19. Video Adjust6 (comp_HD)

No	item	Range	720P 60_HD	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		4	4	4	FIX
1	HORWIDTHP_L		225	225	225	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		16	16	16	FIX
4	HORPOSP_H		1	1	1	FIX
5	HORPOSP_L		53	53	53	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		3	3	3	FIX
9	DHSCPRESC_L		210	210	210	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		214	214	214	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		24	24	24	FIX
14	VEROFFS_S		1	1	0	FIX
15	HORPOS_S_H		0	0	0	FIX
16	HORPOS_S_L		240	240	240	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		85	85	85	FIX
18	DVSCPOSC_LO_H		70	90	70	FIX
19	DVSCPOSC_LO_L		255	255	255	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		162	162	162	FIX
22	HD_BRTADJ		142	142	142	FIX
23	HD_CONADJ		50	50	50	FIX
24	HD_USATADJ		50	50	50	FIX
25	HD_VSATADJ		50	50	50	FIX

20. Video Adjust6 (comp_HD)

No	item	Range	1080i 50_HD	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		4	4	4	FIX
1	HORWIDTHP_L		220	220	220	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		129	129	129	FIX
4	HORPOSP_H		0	0	0	FIX
5	HORPOSP_L		250	250	250	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		15	15	15	FIX
9	DHSCPRESC_L		30	30	30	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		0	0	0	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		0	0	0	FIX
16	HORPOS_S_L		131	131	131	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		53	53	53	FIX
18	DVSCPOSC_LO_H		69	69	69	FIX
19	DVSCPOSC_LO_L		255	255	255	FIX
20	DHSCPOSC_HI		13	13	13	FIX
21	DHSCPOSC_LO		246	246	246	FIX
22	HD_BRTADJ		143	143	143	FIX
23	HD_CONADJ		49	49	49	FIX
24	HD_USATADJ		50	50	50	FIX
25	HD_VSATADJ		50	50	50	FIX

21. Video Adjust6 (comp_HD)

No	item	Range	1080i 60_HD	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
			intial	Data	Data	
0	HORWIDTHP_H		5	5	5	FIX
1	HORWIDTHP_L		30	30	30	FIX
2	VERWIDTHP_H		2	2	2	FIX
3	VERWIDTHP_L		17	17	17	FIX
4	HORPOSP_H		0	0	0	FIX
5	HORPOSP_L		180	180	180	FIX
6	VERPOSP_H		0	0	0	FIX
7	VERPOSP_L		26	26	26	FIX
8	DHSCPRESC_H		14	14	14	FIX
9	DHSCPRESC_L		130	130	130	FIX
10	DNAPPLIP_H		0	0	0	FIX
11	DNAPPLIP_L		100	100	100	FIX
12	DVOFPOSC		128	128	128	FIX
13	VERPOS_S		6	6	6	FIX
14	VEROFFS_S		0	0	0	FIX
15	HORPOS_S_H		0	0	0	FIX
16	HORPOS_S_L		190	190	190	FIX
	HPULLINMODE		1	1	1	FIX
17	DVSCPOSC_HI		64	64	64	FIX
18	DVSCPOSC_LO_H		0	0	0	FIX
19	DVSCPOSC_LO_L		183	183	183	FIX
20	DHSCPOSC_HI		14	14	14	FIX
21	DHSCPOSC_LO		66	66	66	FIX
22	HD_BRTADJ		143	143	143	FIX
23	HD_CONADJ		49	49	49	FIX
24	HD_USATADJ		50	50	50	FIX
25	HD_VSATADJ		50	50	50	FIX

22. VIDEO ADJUST 7(color tone setting)

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	R drive offset Warm2	-20~+20	8	8	8	FIX
1	B drive offset Warm2	-20~+20	-9	-9	-9	FIX
2	R cutoff offset Warm2	-20~+20	6	6	6	FIX
3	B cutoff offset Warm2	-20~+20	-11	-11	-11	FIX
4	R drive offset Warm1	-20~+20	4	4	4	FIX
5	B drive offset Warm1	-20~+20	-3	-3	-3	FIX
6	R cutoff offset Warm1	-20~+20	4	4	4	FIX
7	B cutoff offset Warm1	-20~+20	-3	-3	-3	FIX
8	R drive offset Normal	-20~+20	0	0	0	FIX
9	B drive offset Normal	-20~+20	0	0	0	FIX
10	R cutoff offset Normal	-20~+20	0	0	0	FIX
11	B cutoff offset Normal	-20~+20	0	0	0	FIX
12	R drive offset Cool 1	-20~+20	-5	-5	-5	FIX
13	B drive offset Cool 1	-20~+20	4	4	4	FIX
14	R cutoff offset Cool 1	-20~+20	0	0	0	FIX
15	B cutoff offset Cool 1	-20~+20	6	6	6	FIX
16	R drive offset Cool 2	-20~+20	-2	-2	-2	FIX
17	B drive offset Cool 2	-20~+20	6	6	6	FIX
18	R cutoff offset Cool 2	-20~+20	0	0	0	FIX
19	B cutoff offset Cool 2	-20~+20	9	9	9	FIX

23. VIDEO ADJUST8

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	LTI Gain NTSC	NT RF	15	15	15	FIX
1	Peak_f0_NTSC	NT RF	3	3	3	
2	Peak_cor_NTSC	NT RF	2	2	2	FIX
3	CTI_gain_NTSC	NT RF	5	5	5	FIX
4	Lmix gain_NTSC	NT RF	3	3	3	FIX
5	Lmix offset_NT	NT RF	13	13	13	FIX
6	LTI Gain AV	AV(CVBS,DVD)	15	15	15	FIX
7	Peak_f0_AV	AV(CVBS,DVD)	3	3	3	FIX
8	Peak_cor_AV	AV(CVBS,DVD)	2	2	2	FIX
9	CTI_gain_AV	AV(CVBS,DVD)	5	5	5	FIX
10	Lmix gain_AV	AV(CVBS,DVD)	6	3	3	FIX
11	Lmix offset_AV	AV(CVBS,DVD)	13	13	13	FIX
12	LTI Gain SD	480P,576P	15	15	15	FIX
13	Peak_f0_SD	480P,576P	0	0	0	FIX
14	Peak_cor_SD	480P,576P	2	2	2	FIX
15	CTI_gain_SD	480P,576P	1	5 → 1	1	FIX
16	Lmix gain_SD	480P,576P	3	3	3	FIX
17	Lmix offset_SD	480P,576P	13	13	13	FIX
18	LTI Gain HD	720P,1080I	15	15	15	FIX
19	Peak_f0_ HD	720P,1080I	3	3	3	FIX
20	Peak_cor_ HD	720P,1080I	2	2	2	FIX
21	CTI_gain_ HD	720P,1080I	5	5	5	FIX
22	Lmix gain_ HD	720P,1080I	3	3	3	FIX
23	Lmix offset_ HD	720P,1080I	13	13	13	FIX

24. YC Delay

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	P.YC (AV) Delay	-8 ~ 7	-1	4 → -1	-1	FIX
1	S.YC (AV) Delay	-8 ~ 7	-2	0 → -2	-2	FIX
2	N.YC (AV) Delay	-8 ~ 7	1	1	1	FIX
3	P.BG.YC Delay	-8 ~ 7	-3	4 → -3	-3	FIX
4	P.DK.YC Delay	-8 ~ 7	0	4 → 0	0	FIX
5	P.I.YC Delay	-8 ~ 7	-1	2 → -1	-1	FIX
6	P.M.YC Delay	-8 ~ 7	0	0	0	FIX
7	P.L.YC Delay	-8 ~ 7	0	3 → 0	0	FIX
8	S.BG.YC Delay	-8 ~ 7	-5	-1 → -5	-5	FIX
9	S.DK.YC Delay	-8 ~ 7	-3	-1 → -3	-3	FIX
10	S.I.YC Delay	-8 ~ 7	-4	-2 → -4	-4	FIX
11	S.M.YC Delay	-8 ~ 7	0	0	0	FIX
12	S.L.YC Delay	-8 ~ 7	0	0	0	FIX
13	N.M.YC Delay	-8 ~ 7	0	-1 → 0	0	FIX
14	SD YFDEL	0 ~ 127	60	60	60	FIX
15	SD_UVDEL	0 ~ 127	60	60	60	FIX
16	RGB Y_Delay	0 ~ 127	118	118	118	FIX
17	RGB UV_Delay	0 ~ 127	118	118	118	FIX
18	HD_DELB	0 ~ 3	0	0	0	FIX
19	HD_DELG	0 ~ 3	0	0	0	FIX
20	HD_DELR	0 ~ 3	0	0	0	FIX

25. EEPROM

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
0	System		1	1	1	FIX
1	System_480		2	2	2	FIX
2	System_1080		3	3	3	FIX
3	Dynamic Contrast		90	100	90	FIX
4	Dynamic Brightness		50	40	50	FIX
5	Dynamic Shapness		75	65	75	FIX
6	Dynamic Color		50	50	50	FIX
7	Dynamic Tint		50	50	50	FIX
8	Dynamic Color Tone		2	2	2	FIX
9	Standard Contrast		70	70	70	FIX
10	Standard Brightness		50	50	50	FIX
11	Standard Shapness		50	50	50	FIX
12	Standard Color		45	45	45	FIX
13	Standard Tint		50	50	50	FIX
14	Standard Color Tone		2	2	2	FIX
15	Movie Contrast		50	50	50	FIX
16	Movie Brightness		50	50	50	FIX
17	Movie Shapness		40	40	40	FIX
18	Movie Color		40	40	40	FIX
19	Movie Tint		50	50	50	FIX
20	Movie Color Tone		4	4	4	FIX
21	Left _Blank		17	17	17	FIX
22	Right_Blank		25	25	25	FIX
23	Left Blanking (480)		25	25	25	FIX
24	Right Blanking (480)		25	25	25	FIX
25	Left Blanking (720)		44	44	44	FIX
26	Right Blanking (720)		25	25	25	FIX
27	Left Blanking (1080)		44	44	44	FIX
28	Right Blanking (1080)		25	25	25	FIX
29	RGB Tint	0 ~ 127	0	0	0	FIX
30	DVD Tint	0 ~ 127	0	0	0	FIX
31	Bypass Deint	0 ~ 1	0	0	0	FIX
32	SLMCSW	0 ~ 1	1	1	1	FIX
33	DCE Gain		30	30	30	FIX
34	TTX V-Position		41	41	41	FIX
35	TTX H-Position		222	222	222	FIX
36			255	255	255	FIX
37	37~64 not available		4	4	4	FIX
38	VIDEO ADJUST6 1080I 50		220	220	220	FIX
39			2	2	2	FIX
40			129	129	129	FIX
41			0	0	0	FIX
42	-		250	250	250	FIX
43	-		0	0	0	FIX
44	-		26	26	26	FIX
45	-		15	15	15	FIX

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
46	-		30	30	30	FIX
47	-		0	0	0	FIX
48	-		0	0	0	FIX
49	-		128	128	128	FIX
50	-		6	6	6	FIX
51	-		0	0	0	FIX
52	-		0	0	0	FIX
53	-		131	131	131	FIX
54	-		1	1	1	FIX
55	-		53	53	53	FIX
56	-		69	69	69	FIX
57	-		255	255	255	FIX
58	-		13	13	13	FIX
59	-		246	246	246	FIX
60	-		145	145	145	FIX
61	-		49	49	49	FIX
62	-		32	32	32	FIX
63	-		32	32	32	FIX
64	TTX_Bow offset		-1	-1	-1	
65	TTX_H_Para offset		-1	-1	-1	
66	TTX_Up corner offset		-1	-1	-1	
67	TTX_Low corner offset		-1	-1	-1	
68	SECAM Dr	0~3	1	1	1	FIX
69	SECAM Db	0~3	2	2	2	FIX
70	PIP-Threshold	0~63	45	45	45	FIX
71			0	0	0	
72	LNA PLUS STEP2		15	15	15	FIX
73	LNA PLUS STEP3		16	16	16	FIX
74	LNA PLUS STEP4		30	30	30	FIX
75	LNA PLUS STEP5		32	32	32	FIX
76	LNA PLUS STEP6		32	32	32	FIX
77	H-PLL(AV)		255	255	255	FIX
78	RF color sens	0~255	255	255	255	FIX
79	AV color sens	0~255	255	255	255	FIX
80	R drive offset 1080P	-20~+20	0	0	0	FIX
81	G drive offset 1080P	-20~+20	0	0	0	FIX
82	R cutoff offset 1080P	-20~+20	7	7	7	FIX
83	G cutoff offset 1080P	-20~+20	6	6	6	FIX
84	R drive offset 1080i	-20~+20	0	0	0	FIX
85	G drive offset 1080i	-20~+20	0	0	0	FIX
86	R cutoff offset 1080i	-20~+20	7	7	7	FIX
87	G cutoff offset 1080i	-20~+20	6	6	6	FIX
88	R drive offset 720P-60HZ	-20~+20	0	0	0	FIX
89	G drive offset 720P-60HZ	-20~+20	0	0	0	FIX
90	R cutoff offset 720P-60HZ	-20~+20	0	7	7	FIX
91	G cutoff offset 720P-60HZ	-20~+20	7	6	6	FIX

No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
92	R drive offset 720P-50HZ	-20~+20	6	0	0	FIX
93	G drive offset 720P-50HZ	-20~+20	0	0	0	FIX
94	R cutoff offset 720P-50HZ	-20~+20	7	7	7	FIX
95	G cutoff offset 720P-50HZ	-20~+20	6	6	6	FIX
96	R drive offset 480P	-20~+20	0	0	0	FIX
97	G drive offset 480P	-20~+20	0	0	0	FIX
98	R cutoff offset 480P	-20~+20	0	0	0	FIX
99	G cutoff offset 480P	-20~+20	0	0	0	FIX
100	R drive offset 576P	-20~+20	0	0	0	FIX
101	G drive offset 576P	-20~+20	0	0	0	FIX
102	R cutoff offset 576P	-20~+20	0	0	0	FIX
103	G cutoff offset 576P	-20~+20	0	0	0	FIX
104	R drive offset 480i	-20~+20	0	0	0	FIX
105	G drive offset 480i	-20~+20	0	0	0	FIX
106	R cutoff offset 480i	-20~+20	0	0	0	FIX
107	G cutoff offset 480i	-20~+20	0	0	0	FIX
108	R drive offset 576i	-20~+20	0	0	0	FIX
109	G drive offset 576i	-20~+20	0	0	0	FIX
110	R cutoff offset 576i	-20~+20	0	0	0	FIX
111	G cutoff offset 576i	-20~+20	0	0	0	FIX
112	H_EHT comp_720p		1	1	1	
113	V_EHT comp_720p		5	5	5	
114	PIN EHT comp_720p		1	1	1	
115	ABL TH_1080i		3	3	3	
116	Color On_NTSC		2	2	2	
117	Color Killer Threshold_NTSC		210	210	210	
118	ACC Limitation_NTSC		16	16	16	
119	Color Killer Threshold_AV		230	230	230	
120	120~146 not available		4			
146	VIDEO ADJUST6 720P50		226			
148	148~166 not available		2			
166	NTSC DEFLECTION		125			
168	168~186 not available		1			
186	480P DEFLECTION		50			
187	187~205 not available		0			
205	576P DEFLECTION		26			
206	206~224 not available		2			
224	720P DEFLECTION		30			
225	225~243 not available		0			
243	1080I DEFLECTION		240			
244	PIP CONT	0~255	128	128	128	FIX
245	PIP-Bright	0~255	245	245	245	FIX
246	PIP-SCURVE	0~1	1	1	1	FIX
247	PIP-CTI	0~3	2	2	2	FIX
248	PIP-Sharp	0~7	0	0	5	FIX
249	PIP-Tint	0~255	0	0	0	FIX

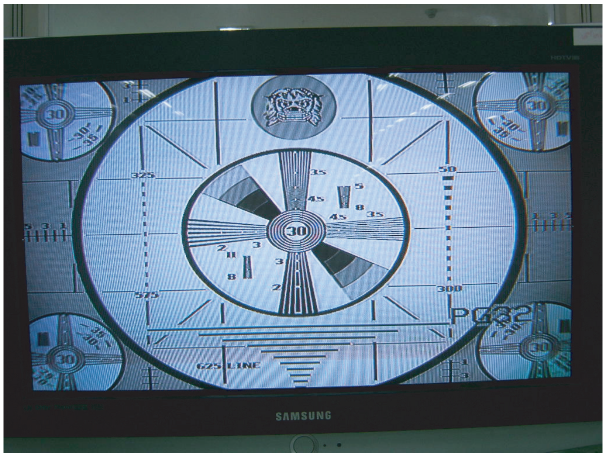
No	item	Range	intial	WS32Z30/40 (32")	CS29Z30/40 (29")	Remark
				Data	Data	
250			21	21	21	
251			255	255	255	
252			255	255	255	
253			0	0	0	
254			0	0	0	
255	HD_P-ABL		9	9	9	FIX

3-4 Service Adjustment

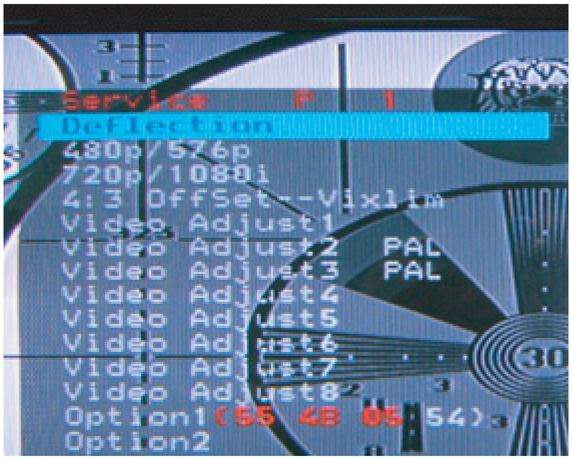
3-4-1 Adjusting the Picture Size

■ Since the S63B chassis has the deflection settings data within the Factory Data, the picture size has to be adjusted when replacing the System Board or the Deflection Board, according to the following procedures.

① Display the Lion pattern.

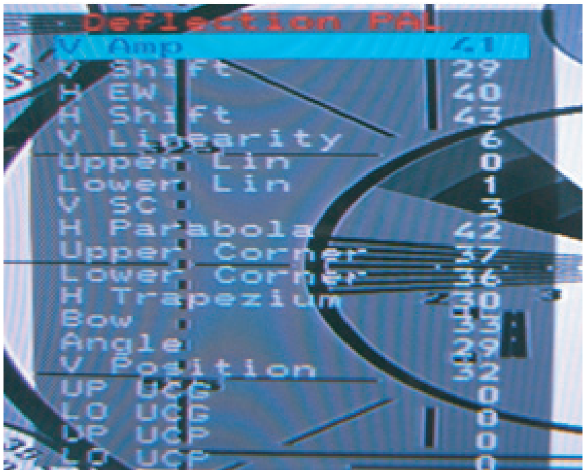


② Press "Info → Menu → Mute → Power On" using the remote control and enter Factory Mode.



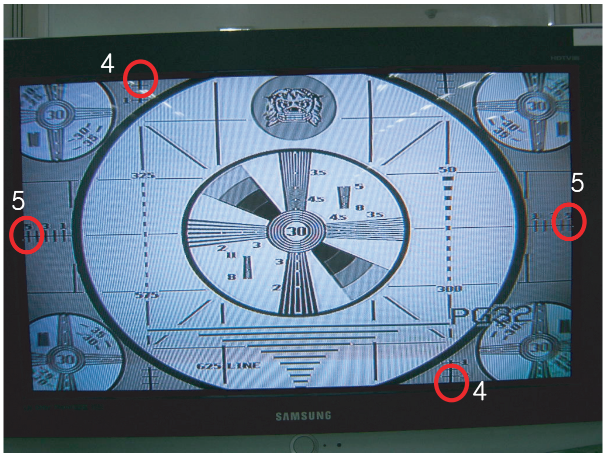
```
Service         P    1
Deflection
480p/576p
720p/1080i
4:3 OffSet--Vixlim
Video Adjust1
Video Adjust2   PAL
Video Adjust3   PAL
Video Adjust4
Video Adjust5
Video Adjust6
Video Adjust7
Video Adjust8
Option1(55 48 05 54)
Option2
```

③ Enter Deflection Mode.



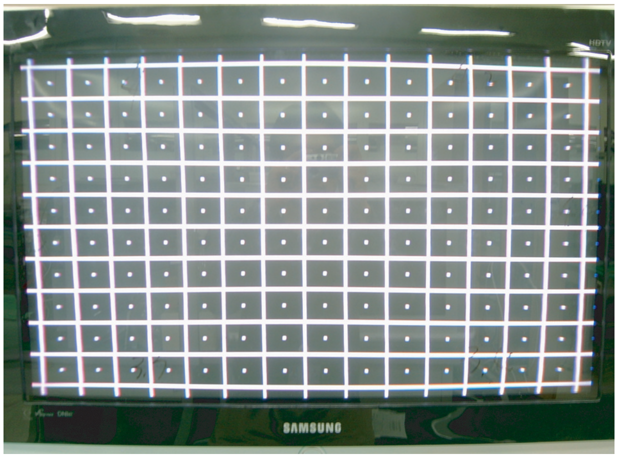
```
Deflection PAL
V Amp              41
V Shift            29
H EW               40
H Shift            43
V Linearity         6
Upper Lin           0
Lower Lin           1
V SC                3
H Parabola         42
Upper Corner       37
Lower Corner       36
H Trapezium        30
Bow                33
Angle              29
V Position         32
UP UCG              0
LO UCG              0
UP UCP              0
LO UCP              0
```

④ Adjust the V-AMP, V-SHIFT, H-AMP and H-SHIFT items so that the width becomes 5 and the height becomes 4.



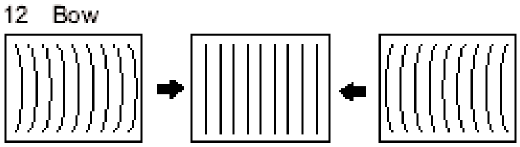
3-4-2 Adjusting the Picture Straight Lines

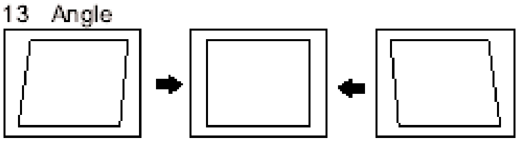
① Display the Cross Hatch pattern.



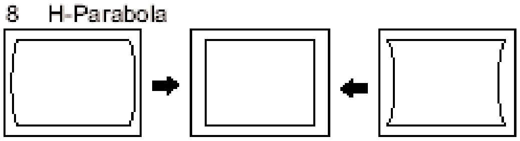
② Adjust settings other than V-AMP, V-SHIFT, H-AMP and H-SHIFT so that straight lines are displayed without curves.

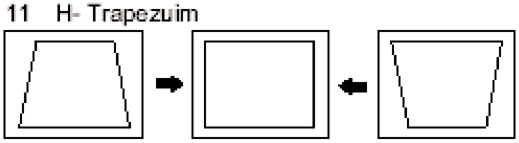
③ Adjust BOW and the Angle settings so that the center line becomes a straight line.



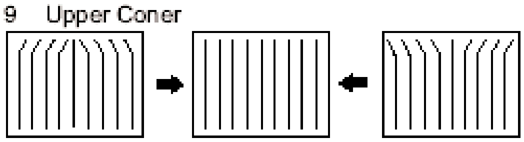


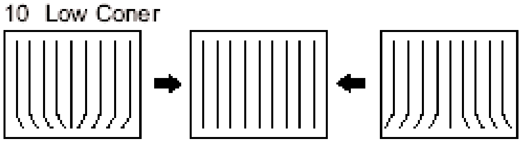
④ Adjust the H-Parabola and H-Trapezium settings so that the left and right lines become straight.


8 H-Parabola

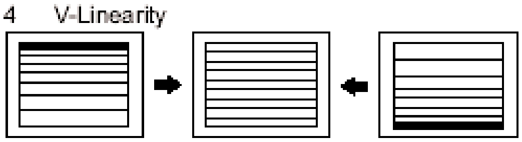

11 H- Trapezuim

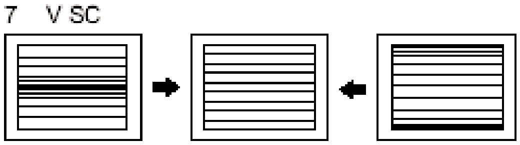
⑤ Adjust the Upper Corner and the Low Corner settings so that the end of the lines become straight.


9 Upper Coner


10 Low Coner

⑥ Adjust the V-Linearity and V-SC settings so that the intervals of the horizontal lines become uniform.


4 V-Linearity

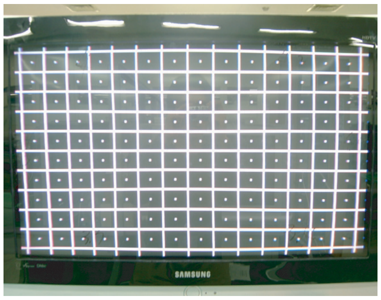


⑦ When the adjustments are complete, display the Lion pattern and check that the picture size has not been changed.
If there is no change, finish the adjustments.

3-5 Replacements & Calibration

3-5-1 Adjusting the Focus

■ Since the S63A chassis has a built-in dynamic focus circuit, take care when adjusting the focus. When the CRT PCB, FBT or CRT has been replaced, the focus has to be adjusted according to the following procedures.

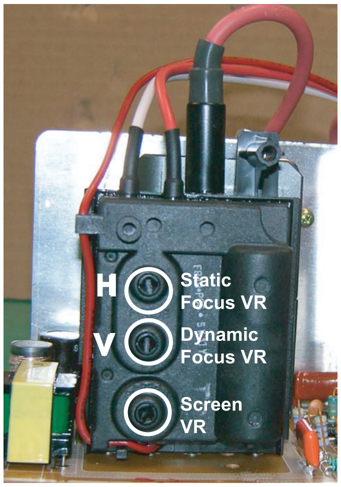


1. Display the CROSS Hatch pattern.

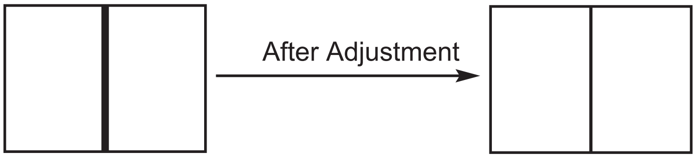
2. Set the Screen Adjustment to "View as Standard".

3. Turn the Static Focus VR clockwise to the maximum position.
   (End of clockwise direction)

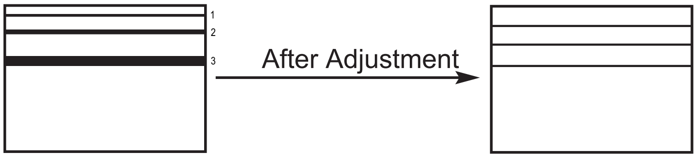
4. Turn the Dynamic Focus VR counter clockwise to the maximum position.
   (End of counter clockwise direction)



5. Slowly turn the Static Focus VR counter clockwise so that the center vertical line is the most clearly displayed.



6. Slowly turn the Dynamic Focus VR clockwise so that the 2nd line is the most clearly displayed.



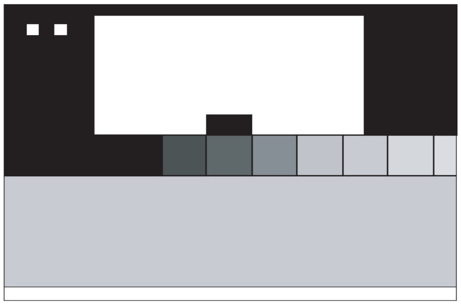
7. Check the entire screen focus and repeat steps 3 to 6, if necessary.

3-5-2 Adjusting the Screen Voltage

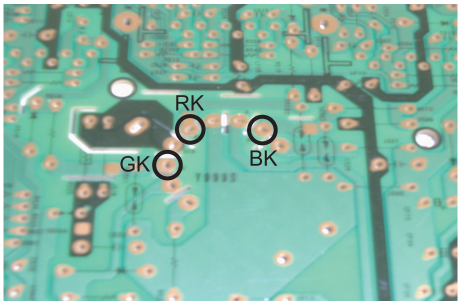
1. Select "Info → Menu → Mute → Power On" to enter Service Mode.

2. Initialize all settings to the values appropriate to the corresponding model.

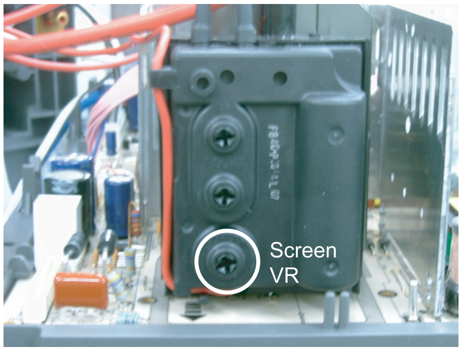
3. Display the Toshiba pattern.

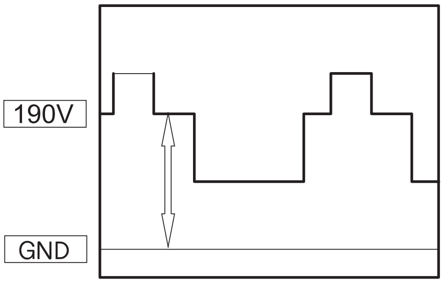


4. Using an Oscilloscope, measure the size of RK, BK and GK to the Pedestal Level.



5. Adjust the Screen VR of FEB so that the highest point of the Pedestal Level is 190V. (29" : 180V)





Adjust Method the Screen Voltage
for Toshiba Pattern by Oscilloscope

※ Screen Voltage Measurement Data

No	Item	Data	Required Adjustment
1	Screen Voltage	The Highest Voltage among RK, GK and BK 190Vp-p-3V	Screen Voltage

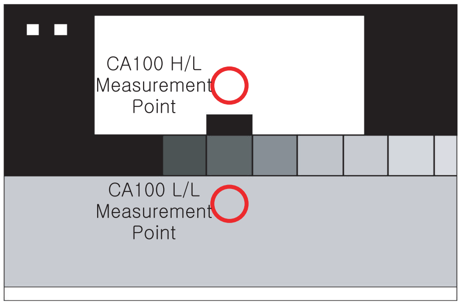
3-5-3 Adjusting the White Balance

1. Initialize all settings to the values appropriate to the corresponding model.

2. Select "Info → Menu → Mute → Power On" to enter Service Mode.

3. Initialize all settings to the values appropriate to the corresponding model.

4. Display the Toshiba pattern and adjust the White Balance using CA100 with the coordinates of the corresponding model.



[CA100]

5. Enter Video Adjust1 of Service Mode. Adjust Low/Light.
   - Adjust Sub Bright to set Y.
   - Adjust B Cutoff to set y.
   - Adjust R Cutoff to set x.

6. Enter Video Adjust1 of Service Mode. Adjust High/Light.
   - Adjust Sub Contrast to set Y.
   - Adjust B Drive to set y.
   - Adjust R Drive to set x.

7. Check Low/Light and readjust it if its value has been changed.

8. If you have readjusted Low/Light, readjust High/Light until the two values are identical to the coordinates of the corresponding model.

※ White Balance Standard Data

No	Item	Data	Required Adjustment
1	White Balance	x:282± 3 / y:290± 3 / 40± 3(High) x:282± 3 / y:290± 3 / 2.5± 0.2(Low)	White Balance (Europe)

3-5-4 Check List for the Screen Voltage and White Balance Adjustment

1. The Screen Voltage and White Balance are connected each other, and both of them have to be configured to the correct values.

2. Adjust the White Balance after the Screen Voltage was adjusted, and check if the Screen Voltage is normal after adjusting the White Balance.

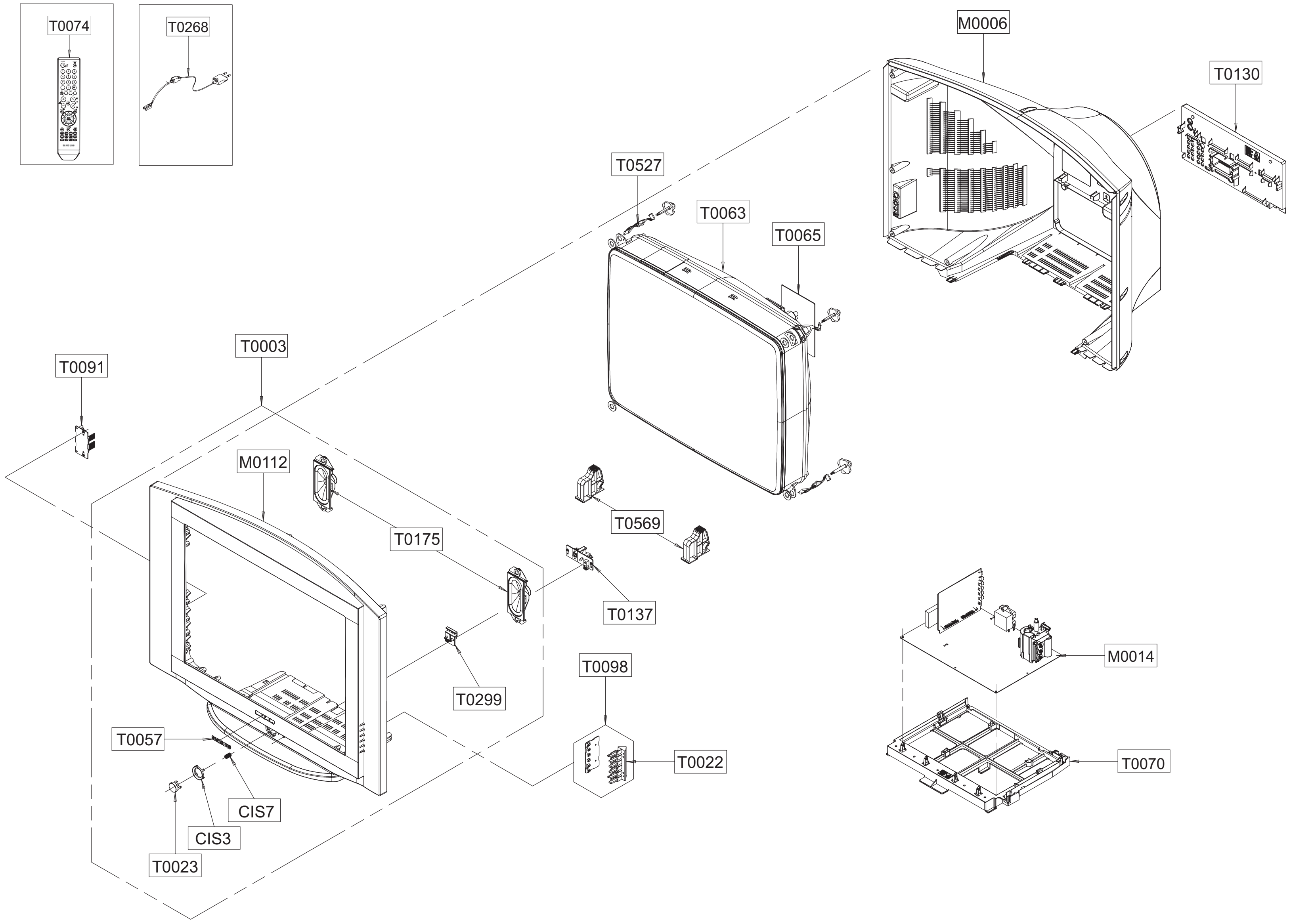
3. If the White Balance is readjusted, check the Screen Voltage again.

4. When the adjustment is finished, check the following checklist.
   - If there is a spot on the screen when turning the TV set off/on, adjust the Screen Voltage again.
   - If there is a ghost line on the screen, adjust the Screen Voltage again.

4. Exploded View & Part List

4-1 CW29Z308TXXXEC

You can search for the updated part code through ITSELF web site.
URL:http://itself.sec.samsung.co.kr



Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CIS3	BP64-00331B	DECORATION-POWER	PJTV,ABS,HB,GR503,SVM30	1	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0006	AA63-01169B	COVER-REAR	29Z30,HIPS,T3.0,FV2,BLK,HQ	1	S.A	
M0014	AA94-15825E	ASSY PCB MAIN	CW29Z308TXXXEC,S63B,SHINE2	1	S.A	
M0112	AA63-01167N	COVER-FRONT	29Z30,HIPS,HB,GR503,SV012P+B	1	S.N.A	
T0003	AA96-03383N	ASSY COVER P-FRONT	29Z30,XEC,HIPS HB,GR5	1	S.A	
T0022	AA64-01201N	KNOB CONTROL	32Z30,ABS,HB,BLK	1	S.N.A	
T0023	BP64-00326A	KNOB POWER	43T9,ABS,HB,BLK,SVM3012	1	S.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK.SIL	1	S.N.A	
T0063	AA03-00488A	CRT COLOR	A68QFZ893X102,+380mG,0.258,13.	1	S.A	
T0065	AA94-15823B	ASSY PCB CRT	29 INCH	1	S.N.A	
T0070	AA61-01424A	HOLDER-CHASSIS	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0074	AA59-00382A	REMOCON	Shine2/Catch Me,TM86,SAMSUNG,44,	1	S.A	
T0091	AA94-15824A	ASSY PCB MISC-A/V SIDE	WS32Z409D8XXEU,S6	1	S.A	
T0098	AA94-15114A	ASSY PCB MISC-CONTROL	CT-32Z30HD,CORE	1	S.A	
T0130	AA96-04081A	ASSY COVER P-TERMINAL BOARD	Z30,PAL,CIS,	1	S.A	
T0137	AA94-15179A	ASSY PCB MISC-LED	,OZ,S62A	1	S.A	
T0175	AA96-03164A	ASSY SPEAKER P	8ohm,6*13cm,Z31,10W,SPK+W	1	S.A	
T0268	AA39-10003B	CBF-POWER CORD	-,KJP-140,KLCE-2F,2.4m,HO	1	S.A	
T0299	AA64-04191A	WINDOW-RMC LED	32Z30,PC CLEAR	1	S.N.A	
T0527	AA65-00061A	CLAMPER CORE-D,COIL	NYLON-66,VO,NTR	4	S.N.A	
T0569	AA61-00813D	SUPPORT-CRT	29Z30(SLIM),HIPS V0,T2.0,GR5	2	S.N.A	

5. Electrical Part List

5-1 CW29Z308TXXXEC

You can search for the updated part code through ITSELF web site.
URL:http://itself.sec.samsung.co.kr

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
		ASSY CHASSIS				
M0017	AA91-09850E	ASSY CHASSIS	CW29Z308TXXXEC,S63B,SHINE2	1	S.N.A	
T0098	AA94-15114A	ASSY PCB MISC-CONTROL	CT-32Z30HD,CORE	1	S.A	
CN330	3711-000058	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,AN	1	S.A	
DZY03	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500mW,DO	1	S.A	
DZY04	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
LY01	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
LY02	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	2	S.N.A	
M2893	AA39-00387C	LEAD CONNECTOR	K62A(CORE),UL1007#26,4P,7	1	S.A	
PCB	AA41-00619A	PCB-CONTROL(Z7)	CT-29HM8,FR-1,1L,A,1.6T,	1	S.N.A	
RY02	2001-000577	R-CARBON	2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY03	2001-000007	R-CARBON	3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY04	2001-000878	R-CARBON	6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY05	2001-000009	R-CARBON	20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY06	2001-000947	R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
T0022	AA64-01201N	KNOB CONTROL	32Z30,ABS,HB,BLK	1	S.N.A	
T0057	AA97-15792A	ASSY AUTO-CONTROL	CT-32Z30HD,CORE	1	S.N.A	
T0245	0202-001522	SOLDER-WIRE FLUX	LFA3-107,-,D1.2,96.5Sn/	0.001	S.N.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0137	AA94-15179A	ASSY PCB MISC-LED	,OZ,S62A	1	S.A	
0	AA41-01123A	PCB-LED	CT-32Z30HD,FR-1,1L,A,1.6T,245X24	1	S.N.A	
CC01	2401-002291	C-AL	47uF,20%,16V,GP,TP,6.3x5,5	1	S.A	
CIS7	AA41-00521A	PCB-MASTER S/W	CS32Z4,FR-1,1L,A,1.6T,245	1	S.N.A	
CN330	3711-001031	HEADER-BOARD TO CABLE	BOX,6P,1R,2.5MM,AN	1	S.A	
DC01	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
DC02	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
DZC01	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500mW,DO	1	S.A	
EY01	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY02	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY03	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY04	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
GTY01	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY02	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY03	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY04	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY05	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY06	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
LD01	0601-001381	LED	ROUND,RED/GRN,5.0MM,650/563NM	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	2	S.N.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	2	S.N.A	
M2893	BP39-00033C	LEAD CONNECTOR	K62A(CORE),UL1007#26,UL/C	1	S.A	
RC01	2001-000020	R-CARBON(S)	22OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
RM01	AA32-00012A	Module Remocon	ST,-,-	1	S.A	
⚠ SW811S	3403-001134	SWITCH-PUSH	250V,5A,DPST,ON-OFF,-	1	S.A	
T0023	AA97-05539A	ASSY AUTO-MASTER	WS36Z48D,KS4A,PAL	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.4	S.N.A	
T0245	AA39-20179A	LEAD CONNECTOR-ASSY	,3(2)P,300MM,YFH800-	1	S.A	
T0245	0202-001522	SOLDER-WIRE FLUX	LFA3-107,-,D1.2,96.5Sn/	0.4	S.N.A	
T0245	0202-001522	SOLDER-WIRE FLUX	LFA3-107,-,D1.2,96.5Sn/	0.001	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0286	AA94-15180A	ASSY PCB MISC-MASTER S/W	,OZ,S62A	1	S.A	
T0523	AA61-00530B	BRACKET-MASTER	25M6,29M6,SECC	1	S.N.A	
	AA97-15853A	ASSY AUTO-LED	,OZ,S62A	1	S.N.A	
T0065	AA94-15823B	ASSY PCB CRT	29 INCH	1	S.N.A	
C501	2201-000193	C-CERAMIC,DISC	0.01nF,0.25pF,50V,C0G,-,4	1	S.A	
C504	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C505	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C506	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C507	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C508	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C509	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C511	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C512	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C513	2201-000600	C-CERAMIC,DISC	0.56NF,10%,50V,Y5P,TP,5X3	1	S.A	
C514	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C515	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C516	2401-000302	C-AL	100uF,20%,25V,GP,TP,6.3x11,5	1	S.A	
C517	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C518	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C519	2401-000430	C-AL	10uF,20%,250V,GP,TP,10x16mm,5m	1	S.A	
C520	2401-000703	C-AL	2200uF,20%,25V,GP,-,12.5x25mm,	1	S.A	
C521	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C522	2201-002117	C-CERAMIC,DISC	4.7nF,20%,3000V,Y5U,-,16x	1	S.A	
C526	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C528	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C532	2401-001563	C-AL	47uF,20%,400V,GP,TP,16x25,7.5	1	S.A	
C533	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C534	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C536	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C537	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C538	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
CF01	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
CF02	2201-000017	C-CERAMIC,DISC	1nF,10%,50V,Y5P,-,5x3.5mm	1	S.A	
CF04	2401-000045	C-AL	10uF,20%,160V,GP,TP,10x16,5	1	S.A	
CF05	2201-000019	C-CERAMIC,DISC	10nF,+80-20%,500V,Y5V,-,1	1	S.A	
CF06	2201-002103	C-CERAMIC,DISC	0.015NF,5%,500V,C0G,TP,6.	1	S.A	
CF07	2201-000604	C-CERAMIC,DISC	0.056nF,+100-0%,500V,SL,-	1	S.A	
CF71	2401-000318	C-AL	100uF,20%,25V,LZ,TP,8x11.5,5	1	S.A	
CF73	2401-000045	C-AL	10uF,20%,160V,GP,TP,10x16,5	1	S.A	
CF74	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CF75	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.1	S.N.A	
CN330	3711-002642	HEADER-BOARD TO CABLE	BOX,3P,1R,2.5mm,ST	1	S.A	
CN330	3711-002643	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,ST	1	S.A	
CN330	3711-001084	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,ST	1	S.A	
CN330	3711-003241	HEADER-BOARD TO CABLE	BOX,14P,1R,2.5MM,S	1	S.A	
D501	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D502	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D504	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D509	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D510	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D511	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D512	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D513	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D514	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
DF08	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
DU410	1201-000010	IC-OP AMP	2030,PENTAWATT,5P,-,SINGLE,-,C	1	S.A	
DZ501	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ502	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ503	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ504	0403-000698	DIODE-ZENER	TZP12A,5%,1000mW,DO-41,TP	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
GT501	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT502	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT503	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
GT504	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT505	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT506	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
IC063	AA13-00111A	IC HYBRID	STK396-130,WT-32A20HD,12,105C,	1	S.A	
IC501	AA96-03027A	ASSY HEAT SINK P	AA62-00147A,TDA6111Q,HE	1	S.N.A	
IC502	AA96-03027A	ASSY HEAT SINK P	AA62-00147A,TDA6111Q,HE	1	S.N.A	
IC503	AA96-03027A	ASSY HEAT SINK P	AA62-00147A,TDA6111Q,HE	1	S.N.A	
IC504	BH99-00038E	ASSY HEAT/SINK	TDA2030,AMP,HERCULES,BH62	1	S.N.A	
IC506	0502-000006	TR-POWER	KSC1507,NPN,15W,TO-220,TP,120-	1	S.A	
L501	2701-001040	INDUCTOR-AXIAL	10UH,10%,4514	1	S.A	
L502	2701-000178	INDUCTOR-AXIAL	33UH,10%,3070	1	S.A	
LF03	2701-000112	INDUCTOR-AXIAL	100UH,10%,3070	1	S.A	
LX085	AA27-90001B	COIL-SPARK,GAP	S-23,1.5KV,-,-,-,-,-,-,-,	1	S.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	1	S.N.A	
M0144	BH61-00004A	SPRING ETC-TR	CDA,CDB,SUS304,-,-,-,-,-,T	1	S.N.A	
M2893	AA39-00380C	LEAD CONNECTOR	WS32Z409D,UL1185#26,14PIN	1	S.A	
M2893	BP39-00055D	LEAD CONNECTOR	V18C,UL1007#26,UL/CSA,8P,	1	S.A	
PCB	AA41-01205A	PCB CRT	WS32Z40,FR-1,1L,A,1.6T,245X330,S	1	S.N.A	
Q501	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q502	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q503	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q504	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q505	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
R501	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R502	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R504	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R505	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R506	2004-001373	R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R507	2001-000472	R-CARBON	2.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R508	2001-000995	R-CARBON	820OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R509	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
R510	2004-001373	R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R511	2004-001373	R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R512	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R513	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R514	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R515	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R519	2001-000397	R-CARBON	180KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R520	2001-000563	R-CARBON	27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R522	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R523	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R525	2002-001006	R-COMPOSITION	4.7Kohm,15%,1/2W,AA,TP,3.7	1	S.A	
R527	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R528	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
R529	2008-000264	R-FUSIBLE(S)	1ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R530	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R531	2001-000009	R-CARBON	20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R532	2004-001893	R-METAL(S)	22Kohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R533	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R534	2004-004097	R-METAL	1.6Kohm,2%,1/2W,AA,TP,2.4X6.4mm	1	S.A	
R535	2001-001103	R-CARBON(S)	20KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R536	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R537	2001-001196	R-CARBON(S)	9.1KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R538	2001-001062	R-CARBON(S)	10MOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R540	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R541	2008-001053	R-FUSIBLE	22ohm,5%,1/2W,AF,TP,2.5x6.5mm	1	S.A	
R554	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R555	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R556	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R559	2008-001110	R-FUSIBLE(S)	68ohm,5%,2W,AG,TP,3.9X12mm	1	S.A	
R560	2001-000052	R-CARBON(S)	3.3KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R561	2001-001126	R-CARBON(S)	300OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R562	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R563	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R564	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R565	2001-001071	R-CARBON(S)	12KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R566	2001-001040	R-CARBON(S)	0.68OHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R567	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R568	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
RF11	2001-001175	R-CARBON(S)	62OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
RF12	2003-001093	R-METAL OXIDE(S)	12Kohm,5%,2W,AF,TP,3.9x	1	S.A	
RF13	2008-000292	R-FUSIBLE(S)	3.3ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	
RF20	2003-001042	R-METAL OXIDE(S)	5.6Kohm,5%,2W,AF,TP,3.9	1	S.A	
RF21	2003-001042	R-METAL OXIDE(S)	5.6Kohm,5%,2W,AF,TP,3.9	1	S.A	
RF22	2003-000995	R-METAL OXIDE(S)	3.3Kohm,5%,2W,AF,TP,3.9	1	S.A	
RF35	2003-001024	R-METAL OXIDE(S)	150ohm,5%,2W,AF,TP,3.9x	1	S.A	
T0074	1201-001131	IC-VIDEO AMP	6111,SIP,9P,-,SINGLE,-,PLAS	1	S.A	
T0081	BH62-00041A	HEAT SINK-TR	PN17LT,A1050S,T1.0,50,23,WH	1	S.N.A	
T0087	1203-003951	IC-POSI.FIXED REG.	KA7812ETSTU,TO-220,3P	1	S.A	
T0100	AA97-16540B	ASSY AUTO-CRT	29 INCH	1	S.N.A	
T0175	AA62-00147A	HEAT SINK-PS	K62A,A1050,T2.0,35mm,40mm,W	1	S.N.A	
T0245	0202-001522	SOLDER-WIRE FLUX	LFA3-107,-,D1.2,96.5Sn/	0.01	S.N.A	
T0245	AA39-20010D	LEAD CONNECTOR-ASSY	,1P,400,YFH800-01,S,	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.A	
⚠ V999S1	3704-001197	SOCKET-CRT	8P+SEN,29PI,22.5PI,NI+SN,-	1	S.A	
T0091	AA94-15824A	ASSY PCB MISC-A/V SIDE	WS32Z409D8XXEU,S6	1	S.A	
C701	2202-000279	C-CERAMIC,MLC-AXIAL	47pF,5%,50V,SL,TP,3.	1	S.A	
C702	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C703	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C704	2202-000279	C-CERAMIC,MLC-AXIAL	47pF,5%,50V,SL,TP,3.	1	S.A	
DZ701	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ702	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ703	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ704	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ705	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ706	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ707	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
JA332	3722-000544	JACK-VHS	4P,AG,BLK,STRAIGHT	1	S.A	
JA333	3722-001164	JACK-PIN	3P,SN,WH:YE:RE,STRAIGHT	1	S.A	
L701	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L702	2701-000168	INDUCTOR-AXIAL	3.3UH,5%,2534	1	S.A	
L703	2701-000168	INDUCTOR-AXIAL	3.3UH,5%,2534	1	S.A	
L704	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
M2893	AA39-00381A	LEAD CONNECTOR	CS29M6SPNX/BWT,UL1185#26,	1	S.A	
R701	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R702	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
T0091	AA41-01211A	PCB-SIDE A/V	WS32Z40,FR-1,1,A,1.6T,330X2	1	S.N.A	
T0245	0202-001522	SOLDER-WIRE FLUX	LFA3-107,-,D1.2,96.5Sn/	0.001	S.N.A	
T0569	AA97-16541A	ASSY AUTO-A/V SIDE	WS32Z409D8XXEU,S64A,U	1	S.N.A	
M0014	AA94-15825E	ASSY PCB MAIN	CW29Z308TXXXEC,S63B,SHINE2	1	S.A	
C101	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
C102	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C103	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C104	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C105	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C106	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C109	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C110	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C115	2401-000913	C-AL	22uF,20%,16V,GP,TP,5x11,5	1	S.A	
C302	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C303	2201-000132	C-CERAMIC,DISC	0.1NF,10%,500V,Y5P,TP,6.5	1	S.A	
C304	2301-000010	C-FILM,LEAD-PEF	100nF,5%,100V,TP,11.5x12	1	S.A	
C305	2305-000285	C-FILM,LEAD-PEF	220NF,5%,100V,TP,10.5X5.	1	S.A	
C306	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
C307	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C308	2305-000411	C-FILM,LEAD-PEF	470nF,5%,50V,TP,7.3x4.8x	1	S.A	
C401	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C402	2401-000038	C-AL	470uF,20%,25V,GP,TP,10x12.5mm,	1	S.A	
C403	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C404	2401-000038	C-AL	470uF,20%,25V,GP,TP,10x12.5mm,	1	S.A	
C406	2303-000163	C-FILM,LEAD-PPF	2.2nF,5%,800V,TP,15x13x8	1	S.A	
C407	2305-000412	C-FILM,LEAD-PEF	470nF,5%,63V,TP,-,5mm	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
C408	2301-001083	C-FILM,LEAD-PPF	27nF,5%,400V,TP,20x7.5x1	1	S.A	
C409	2301-001385	C-FILM,LEAD-PPF	30nF,5%,630V,TP,20x15.5x	1	S.A	
C410	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
C411	2301-000160	C-FILM,LEAD-PEF	12nF,5%,50V,TP,11.0x6.0x	1	S.A	
C412	2305-000178	C-FILM,LEAD-PEF	10nF,5%,100V,TP,-,5mm	1	S.A	
C414	2401-001998	C-AL	1000uF,20%,25V,GP,TP,10x20,5mm	1	S.A	
C415	2301-001171	C-FILM,LEAD-PPF	10nF,5%,400V,TP,20x6.5x1	1	S.A	
C416	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C417	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C418	2401-002594	C-AL	220uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C420	2301-000213	C-FILM,LEAD-PEF	220nF,5%,250V,TP,21.5x11	1	S.A	
C421	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C422	2401-001527	C-AL	47uF,20%,250V,HR,TP,13x25mm,5m	1	S.A	
C423	2306-000272	C-FILM,LEAD-PPF	820nF,5%,400V,BK,29x25.5	1	S.A	
C424	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C425	2301-001774	C-FILM,LEAD	130nF,5%,400V,TP,18.0X13.5X7	1	S.A	
C426	2306-000350	C-FILM,LEAD-PPF	270nF,5%,400V,BK,26x18.5	1	S.A	
C427	2303-000002	C-FILM,LEAD-PPF	8.2nF,0.05,400V,TP,19x18	1	S.A	
C433	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C448	2401-003553	C-AL	100uF,20%,200V,LZ,TP,16x25,7.5	1	S.A	
C449	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C607	2301-000402	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5x7x2.8mm,	1	S.A	
C608	2301-000402	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5x7x2.8mm,	1	S.A	
C609	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	1	S.A	
C610	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	1	S.A	
C615	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C616	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C619	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C621	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C628	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C629	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C630	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C634	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C640	2401-001281	C-AL	4.7uF,20%,50V,WT,TP,5x11,5	1	S.A	
C642	2401-001998	C-AL	1000uF,20%,25V,GP,TP,10x20,5mm	1	S.A	
C648	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C801	2401-000703	C-AL	2200uF,20%,25V,GP,-,12.5x25mm,	1	S.A	
C802	2401-002287	C-AL	470uF,20%,200V,WT,BK,25x40,10	1	S.A	
C803	2401-002227	C-AL	330uF,20%,450V,GP,BK,35x45,10	1	S.A	
C805	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C806	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C807	2301-001435	C-FILM,LEAD-PPF	1.5nF,5%,1.2kV,TP,15x8x1	1	S.A	
C808	2401-001561	C-AL	47uF,20%,35V,WT,TP,8x11.5,5	1	S.A	
C809	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C811	2401-002075	C-AL	4.7uF,20%,50V,GP,TP,5x11,5	1	S.A	
C812	2401-000603	C-AL	1UF,20%,50V,GP,TP,5X11,2	1	S.A	
C813	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C814	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C815	2201-000131	C-CERAMIC,DISC	0.1NF,10%,2KV,Y5P,TP,6.3X	1	S.A	
C816	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C817	2305-000289	C-FILM,LEAD-PEF	220nF,5%,63V,TP,-,5mm	1	S.A	
C818	2305-000407	C-FILM,LEAD-PEF	470nF,5%,100V,TP,-,5mm	1	S.A	
C819	2201-000374	C-CERAMIC,DISC	0.22NF,5%,50V,C0G,TP,10.5	1	S.A	
C820	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C821	2301-000356	C-FILM,LEAD-PEF	47nF,5%,50V,TP,7.5x4.0x6	1	S.A	
C822	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C823	2401-000689	C-AL	2200uF,20%,16V,GP,TP,13x25,5	1	S.A	
C824	2201-000332	C-CERAMIC,DISC	2.2nF,20%,250V,Y5U,-,9x4m	1	S.A	
C825	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C826	2201-000332	C-CERAMIC,DISC	2.2nF,20%,250V,Y5U,-,9x4m	1	S.A	
C838	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
CA701	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
CA703	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
CA705	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
CA707	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
CA708	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
CA709	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
CA710	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CA711	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA712	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA713	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA714	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA715	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA731	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA732	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA733	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA734	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA801	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA802	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CA803	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA804	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CA805	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CA806	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA807	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA808	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CA809	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA810	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA811	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CA812	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA813	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA814	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CA815	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA816	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA817	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA818	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA819	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA820	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA821	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA822	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA823	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA824	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA825	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA826	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA827	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA828	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA829	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA830	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA831	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA832	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA833	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA834	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA835	2409-001085	C-ORGANIC	47UF,20%,10V,WT,TP,5*5.7MM,1.4	1	S.A	
CA836	2409-001085	C-ORGANIC	47UF,20%,10V,WT,TP,5*5.7MM,1.4	1	S.A	
CA837	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA838	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA839	2409-001065	C-ORGANIC	82uF,20%,16V,WT,TP,8X6.9mm,-	1	S.A	
CA840	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
CA841	2203-000405	C-CER,CHIP	0.18nF,5%,50V,C0G,1608	1	S.A	
CA842	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
CA843	2203-000715	C-CER,CHIP	3.3nF,10%,50V,X7R,1608	1	S.A	
CA844	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA845	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA846	2402-001158	C-AL,SMD	1UF,20%,50V,WT,TP,4X5.2MM	1	S.A	
CA847	2409-001114	C-POLYMER ,CHIP	220UF,20%,10V,LR,TP,7343	1	S.A	
CA848	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA849	2409-001085	C-ORGANIC	47UF,20%,10V,WT,TP,5*5.7MM,1.4	1	S.A	
CA850	2402-001165	C-AL,SMD	4.7UF,20%,35V,WT,TP,4X5.8MM	1	S.A	
CA851	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA852	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA853	2402-001259	C-AL,SMD	220uF,20%,16V,WT,REEL,8X10	1	S.A	
CA854	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA855	2402-001129	C-AL,SMD	47UF,20%,16V,WT,TP,6.3X5.2MM	1	S.A	
CA856	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA857	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CA901	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA902	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CD901	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CD902	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD903	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CD904	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD905	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD906	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CD907	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD908	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD910	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD911	2402-001238	C-AL,SMD	1uF,20%,50V,HR,TP,4.3x4.3x5.2mm	1	S.A	
CD912	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD913	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD914	2402-001165	C-AL,SMD	4.7UF,20%,35V,WT,TP,4X5.8MM	1	S.A	
CD915	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CD916	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CD917	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CD918	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD919	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CD920	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD921	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD922	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD923	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD924	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD925	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD927	2301-001664	C-FILM,LEAD-OTHER	100nF,3%,50V,TP,20x16x	1	S.A	
CD928	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CD930	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CD931	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD932	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD933	2402-001165	C-AL,SMD	4.7UF,20%,35V,WT,TP,4X5.8MM	1	S.A	
CD934	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CD935	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD936	2203-001034	C-CER,CHIP	5.6nF,10%,50V,X7R,1608	1	S.A	
CD939	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD940	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD941	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD942	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD943	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD944	2203-000888	C-CER,CHIP	4.7nF,10%,50V,X7R,1608	1	S.A	
CD945	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD946	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD947	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD948	2203-006170	C-CER,CHIP	220nF,10%,16V,X7R,1608	1	S.A	
CD949	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	1	S.A	
CD950	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
CD951	2402-001129	C-AL,SMD	47UF,20%,16V,WT,TP,6.3X5.2MM	1	S.A	
CD952	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD953	2203-006170	C-CER,CHIP	220nF,10%,16V,X7R,1608	1	S.A	
CD954	2203-001397	C-CER,CHIP	2.2nF,5%,50V,NP0,1608	1	S.A	
CD955	2203-006333	C-CER,CHIP	10000nF,20%,16V,X5R,TP,3216	1	S.A	
CD956	2203-001397	C-CER,CHIP	2.2nF,5%,50V,NP0,1608	1	S.A	
CD958	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD959	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.2	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.2	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.1	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.3	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.1	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.1	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.2	S.N.A	
CIS3	AA40-00128A	TUNER	TMQZ2-407A,PAL-CW,PAL Hyper,38.9MH	1	S.A	
CN01	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
CN02	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
CN301	AA60-40012F	PIN-GT	4P,2.36PI,6/12/14mm,NYLON66,LOCKI	1	S.N.A	
CN330	3711-001084	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,ST	1	S.A	
CN330	3711-003043	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,ST	1	S.A	
CN330	3711-001031	HEADER-BOARD TO CABLE	BOX,6P,1R,2.5MM,AN	1	S.A	
CN330	3711-001111	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,AN	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CN330	3711-004067	HEADER-BOARD TO CABLE	BOX,4P,1R,2mm,ANGL	1	S.A	
CN330	3711-004484	HEADER-BOARD TO CABLE	BOX,5P,1R,2mm,STRA	1	S.A	
CN330	3711-003245	HEADER-BOARD TO CABLE	BOX,14P,1R,2.5MM,A	1	S.A	
CN802	AA60-40012G	PIN-GT	3P,2.36PI,10/5mm,NYLON66,LOCKING	1	S.N.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
⚠ CR405S	2306-000326	C-FILM,LEAD-PPF	4.7NF,5%,1.6KV,BK,28.5X1	1	S.A	
⚠ CR406S	2306-000328	C-FILM,LEAD-PPF	6.8NF,5%,1.6KV,BK,28.5X9	1	S.A	
⚠ CR407S	2301-001418	C-FILM,LEAD-PPF	1.5nF,5%,2kV,TP,29x7x13.	1	S.A	
CR425	2301-001193	C-FILM,LEAD-PPF	1000nF,5%,400V,BK,31x17x	1	S.A	
CV201	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV202	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CV203	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV204	2203-001071	C-CER,CHIP	0.056nF,5%,50V,C0G,1608	1	S.A	
CV205	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV206	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV207	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV208	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV209	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV210	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV211	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV212	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV213	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV214	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV215	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV216	2402-001159	C-AL,SMD	3.3UF,20%,50V,WT,TP,4X5.2MM	1	S.A	
CV217	2402-001129	C-AL,SMD	47UF,20%,16V,WT,TP,6.3X5.2MM	1	S.A	
CV218	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV219	2203-001071	C-CER,CHIP	0.056nF,5%,50V,C0G,1608	1	S.A	
CV220	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CV221	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
CV222	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
CV223	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV224	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CV225	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV226	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV227	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CV228	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV229	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CV230	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV231	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
CV232	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
CV233	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV236	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
CV237	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV238	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV239	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV240	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV241	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV242	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV243	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV244	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV245	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV247	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV249	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV250	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV251	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV255	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV256	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
CV257	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
CV258	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
CV259	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
⚠ CX801S	2306-000318	C-FILM,LEAD-PPF	220nF,20%,275V,BK,26x7x1	1	S.A	
⚠ CY801S	2201-000987	C-CERAMIC,DISC	2.2NF,20%,400V,Y5U,BK,12.	1	S.A	
⚠ CY802S	2201-000963	C-CERAMIC,DISC	1NF,20%,400V,Y5U,TP,9.5X6	1	S.A	
D301	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D302	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D401	0402-001295	DIODE-RECTIFIER	GUR460L-5700,600V,4A,DO-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
D402	0402-000540	DIODE-RECTIFIER	RU20A,600V,1.5A,-,TP	1	S.A	
D403	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D404	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D405	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D406	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D407	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D408	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D410	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D411	0402-000540	DIODE-RECTIFIER	RU20A,600V,1.5A,-,TP	1	S.A	
D412	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D413	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D415	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D604	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D801	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
⚠ D801S	0402-001399	DIODE-BRIDGE	GSIB660,600V,6A,SIP-4,BK	1	S.A	
D802	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
D803	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
D805	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D808	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
DA801	0401-001099	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-3	1	S.A	
DA802	0402-000553	DIODE-SCHOTTKY	SS24/B240,40V,2000mA,DO-2	1	S.A	
DD901	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD902	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD903	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD904	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD905	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD906	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD907	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD908	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD909	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD910	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD911	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD912	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD913	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DZ302	0403-000699	DIODE-ZENER	TZP27B,27-30.8V,1000mW,DO-41	1	S.A	
DZ303	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500mW,D	1	S.A	
DZ304	0403-001221	DIODE-ZENER	UZ39BSB,35.36-37.19V,500mW,D	1	S.A	
DZ305	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500mW,D	1	S.A	
DZ306	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ307	0403-001330	DIODE-ZENER	MTZJ30A,26.99-28.39V,500mW,D	1	S.A	
DZ401	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500MW,D	1	S.A	
DZ402	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ405	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ701	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ703	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ705	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ709	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ710	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ713	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ714	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ715	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ716	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ717	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ718	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ719	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ720	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ721	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ722	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ723	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ724	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ725	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ726	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ727	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ728	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ729	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ730	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ731	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ732	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DZ801	0403-001016	DIODE-ZENER	RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A	
DZ802	0403-000718	DIODE-ZENER	MTZJ6.8B,6.52-6.79V,500mW,DO	1	S.A	
DZ803	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ804	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ805	0403-001320	DIODE-ZENER	MTZJ6.2C,6.16-6.4V,500mW,DO-	1	S.A	
DZ806	0403-001321	DIODE-ZENER	MTZJ6.8C,6.7-6.97V,500mW,DO-	1	S.A	
DZ807	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
DZ808	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ809	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ901	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZ902	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZ903	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD01	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD02	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD03	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD04	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD05	0403-000746	DIODE-ZENER	RLZ3.9B,3.89-4.16V,500mW,LL-	1	S.A	
DZD06	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD07	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD08	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD09	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZS01	0403-000367	DIODE-ZENER	UZ7.5BSC,7.3-7.7V,500mW,DO-3	1	S.A	
DZV201	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV202	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV203	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV204	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV205	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV206	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV207	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV208	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV209	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV210	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV211	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
EL400	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL401	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL402	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL403	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL411	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL800	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL801	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL802	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL803	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL804	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EY400	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY401	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY402	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY403	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY404	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY405	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY406	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY407	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY408	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY409	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY410	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY411	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY412	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY413	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY414	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY415	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY416	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY417	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY418	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY419	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY420	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY421	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY422	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY423	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY424	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY425	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY426	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY427	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY428	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY429	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY430	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY431	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY432	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY433	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY434	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY435	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY436	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY437	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY438	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY439	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY440	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY441	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY442	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY443	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY444	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY445	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY446	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY447	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY448	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY449	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY450	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY451	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY452	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY453	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY600	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY601	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY602	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY603	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY800	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY801	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY802	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY803	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY804	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY805	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY806	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY807	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY808	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY809	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY810	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY811	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY812	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY813	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY814	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY815	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY816	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY817	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY818	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY819	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY820	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY821	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY822	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY823	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY824	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY825	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY826	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY827	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY828	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY829	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY830	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY831	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY832	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY833	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY834	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY835	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY836	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY837	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY838	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY839	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY840	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY841	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY842	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY843	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY844	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY845	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY846	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY847	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY848	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY849	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY850	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY851	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY852	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY853	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY854	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000299	FILTER-EMI ON BOARD	-,6A,UL/CSA,-,9x7.5,	1	S.A	
F801A	3602-000114	FUSE-HOLDER	-,-,30mohm	1	S.A	
F801B	3602-000114	FUSE-HOLDER	-,-,30mohm	1	S.A	
⚠ FD801S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
FD802	3601-000414	FUSE-CARTRIDGE	250V,5A,SLOW-BLOW,GLASS,5	1	S.A	
⚠ FD802S	3601-001065	FUSE-AXIAL LEAD	125V,3.5A,FAST-ACTING,CE	1	S.A	
⚠ FD804S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
GT101	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT102	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT201	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT401	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT402	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT804	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT805	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT806	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
H/S	0402-001596	DIODE-RECTIFIER	SLA1004,200/700,3.5A,-,S	1	S.A	
HC401	AA96-04078B	ASSY HEAT SINK P	BP62-00072E,SCREW,FJL69	1	S.N.A	
HC801	BP96-00006D	ASSY HEAT SINK P	BP62-00001A,SCREW,SLA10	1	S.N.A	
HOLDER	AA61-01341A	HOLDER LOCK-PCB	32A10,ABS	1	S.N.A	
IC012	1203-001217	IC-POSI.ADJUST REG.	431,TO-92,3P,4.58MIL	1	S.A	
IC012	1203-000162	IC-POSI.ADJUST REG.	317,TO-220,3P,-,PLAS	1	S.A	
IC06	1203-001211	IC-VOL. DETECTOR	7027,SOT-89,3P,-,PLASTI	1	S.A	
IC063	AA13-00094A	IC HYBRID	-,DDRI001A,SIP,5P,-,TP	1	S.A	
IC063	AA13-00114A	IC HYBRID	EMPEROR,7,-20~+125,FORMING,18A	1	S.A	
IC07	1001-000164	IC-ANALOG MULTIPLEX	74HC4052,CMOS,SOP,16	1	S.A	
IC104	0801-000662	IC-CMOS LOGIC	74HC123,MULTIVIBATOR,SOP,1	1	S.A	
IC112	1103-001314	IC-EEPROM	24C16,2Kx8,SOP,8P,5x4mm,2.7/5.	1	S.A	
IC118	1204-001989	IC-VIDEO PROCESS	CXA2165Q,QFP,64P,20X14M	1	S.A	
IC301	AA96-50381A	ASSY HEAT SINK P	,AA62-30180B,LA7845	1	S.N.A	
IC401	1202-000103	IC-VOLTAGE COMP.	393,DIP,8P,300MIL,DUAL,	1	S.A	
IC602	BP96-00418B	ASSY HEAT SINK P	AA62-30182F,SCREW,TDA72	1	S.N.A	
⚠ IC801S	AA96-50371S	ASSY HEAT SINK P	AA62-30181H,SCREW,STR-X	1	S.N.A	
IC803	1203-003015	IC-DC/DC CONVERTER	MP1410ES,SOIC,8P,4.9x	1	S.A	
⚠ IC803S	BP96-00020N	ASSY HEAT SINK P	HS TR,SCREW,278R05,OIL	1	S.N.A	
JA333	3722-002447	JACK-PIN	5P,SN,GN/BU/RD/WT/RD,ANGLE	1	S.A	
JA701	3722-001884	JACK-SCART	42P,SnPb,BLK	1	S.A	
L101	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L102	2701-000116	INDUCTOR-AXIAL	10UH,10%,4298	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
L103	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	
L301	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L611	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L612	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L613	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L614	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L615	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L616	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L617	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L618	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
LA818	2007-000029	R-CHIP	0ohm,5%,1/8W,TP,2012	1	S.A	
LA819	2007-000029	R-CHIP	0ohm,5%,1/8W,TP,2012	1	S.A	
⚠ LX803S	AA29-30002N	FILTER LINE NOISE	-,16MH,1.5A,AC100~260V	1	S.A	
M0014	AA97-16542E	ASSY AUTO-MAIN	CW29Z308TXXXEC,S63B,SHINE	1	S.A	
M0018	AA97-16563A	ASSY MICOM	T-CTMMPEU-1007,S63A,VCT47xyG_	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	2	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	2	S.N.A	
M0081	6003-000335	SCREW-TAPTITE	RH,+,2S,M3,L8,ZPC(YEL),SWR	1	S.N.A	
M0081	6003-000335	SCREW-TAPTITE	RH,+,2S,M3,L8,ZPC(YEL),SWR	1	S.N.A	
M0081	6003-000335	SCREW-TAPTITE	RH,+,2S,M3,L8,ZPC(YEL),SWR	1	S.N.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTE,T0.3,-,-,-,-	1	S.N.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTE,T0.3,-,-,-,-	1	S.N.A	
P803T	1404-001154	THERMISTOR-PTC	4.5OHM,+30%/-20%,220V,270	1	S.A	
⚠ PC801S	0604-001038	PHOTO-COUPLER	TR,130-260%,200mW,DIP-4,ST	1	S.A	
PCB	AA41-01192A	PCB-F/BOX	WS32Z409P,FR-4,4,A,1.6T,180 X	1	S.N.A	
⚠ PFC01S	AA27-00269A	COIL CHOKE-PFC	35MH,CPTTV,35MH,10%,2.0OH	1	S.A	
Q403	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q404	BP96-00020P	ASSY HEAT SINK P	AA62-00045A,SCREW,FQP63	1	S.N.A	
Q409	0505-001116	FET-SILICON	BUZ73A,N,200V,22A,0.6ohm,40W	1	S.A	
Q409	0505-001679	FET-SILICON	FDC6301N,N,25V,0.22A,5OHM,0.	1	S.A	
Q409	0505-000109	FET-SILICON	2N7000,N,60V,200mA,5ohm,400m	1	S.A	
Q409	0505-001723	FET-SILICON	FQP630TSTU,N,200V,9A,0.4OHM,	1	S.A	
Q603	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q604	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q801	0501-000369	TR-SMALL SIGNAL	KSC2331-Y,NPN,1000mW,TO-	1	S.A	
Q803	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q804	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
QA731	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA732	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QA733	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA734	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA735	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QA736	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA737	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD901	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD902	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD903	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD904	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD905	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD906	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD907	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD908	0501-000727	TR-SMALL SIGNAL	BC848C,NPN,310mW,SOT-23,	1	S.A	
QD909	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD910	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD911	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD912	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD913	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD914	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
QS01	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
QV201	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
R101	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
R102	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
R301	2001-001163	R-CARBON(S)	560OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R303	2001-000016	R-CARBON(S)	1OHM,5%,1/2W,AA,TP,2.4X6.4MM	1	S.A	
R305	2003-002071	R-METAL OXIDE	560ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R306	2003-002071	R-METAL OXIDE	560ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R309	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R310	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R312	2004-001369	R-METAL(S)	1.2Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R314	2004-005051	R-METAL(S)	2.2KOHM,1%,1/2W,AA,TP,2.4X6.4	1	S.A	
R315	2004-005051	R-METAL(S)	2.2KOHM,1%,1/2W,AA,TP,2.4X6.4	1	S.A	
R316	2001-001147	R-CARBON(S)	430KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R317	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R320	2004-001369	R-METAL(S)	1.2Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R323	2004-005042	R-METAL(S)	1.2OHM,1%,1/2W,AA,TP,2.5X6.5M	1	S.A	
R323B	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R324	2004-004087	R-METAL(S)	1.5ohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R403	2008-001062	R-FUSIBLE	39ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	
R404	2003-000540	R-METAL OXIDE(S)	1Kohm,5%,2W,AF,TP,4x12m	1	S.A	
R406	2004-005051	R-METAL(S)	2.2KOHM,1%,1/2W,AA,TP,2.4X6.4	1	S.A	
R407	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R408	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R409	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R410	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R411	2004-004048	R-METAL(S)	3.9Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R412	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R413	2004-004015	R-METAL(S)	9.1Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R414	2004-004038	R-METAL	4.3Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
R415	2001-001148	R-CARBON(S)	430OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R416	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R417	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R418	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R419	2001-001142	R-CARBON(S)	3KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R420	2001-001070	R-CARBON(S)	120OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R421	2001-001115	R-CARBON(S)	27KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R422	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R423	2004-001371	R-METAL(S)	1.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R424	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R425	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R426	2003-002288	R-METAL OXIDE(S)	2.2KOHM,5%,2W,AF,TP,3.9	1	S.A	
R427	2004-001399	R-METAL(S)	5.1Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R428	2004-000698	R-METAL	3.3Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
R429	2003-002288	R-METAL OXIDE(S)	2.2KOHM,5%,2W,AF,TP,3.9	1	S.A	
R430	2004-000531	R-METAL	20Kohm,1%,1/2W,AA,TP,2.3x6.5mm	1	S.A	
R431	2004-000531	R-METAL	20Kohm,1%,1/2W,AA,TP,2.3x6.5mm	1	S.A	
R433	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R434	2001-001155	R-CARBON(S)	5.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R435	2003-000540	R-METAL OXIDE(S)	1Kohm,5%,2W,AF,TP,4x12m	1	S.A	
R436	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R437	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R438	2001-001054	R-CARBON(S)	1.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R440	2004-000531	R-METAL	20Kohm,1%,1/2W,AA,TP,2.3x6.5mm	1	S.A	
R444	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R445	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R446	2003-002102	R-METAL OXIDE(S)	68Kohm,5%,2W,AF,TP,4x12	1	S.A	
R448	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R453	2004-001394	R-METAL(S)	2Kohm,1%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R454	2004-001394	R-METAL(S)	2Kohm,1%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R455	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R621	2001-000252	R-CARBON	1.6Kohm,5%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
R622	2001-000252	R-CARBON	1.6Kohm,5%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
R623	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R626	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R627	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R633	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R636	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R646	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R647	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R670	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R671	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R801	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R802	2002-001021	R-COMPOSITION	560KOHM,5%,1/2W,AA,TP,3.7X	1	S.A	
R803	2001-001153	R-CARBON(S)	47ohm,5%,1/2W,AA,TP,2.4x6.4m	1	S.A	
R804	2001-001120	R-CARBON(S)	3.3OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R805	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R807	2001-000037	R-CARBON(S)	330OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R808	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R810	2001-001097	R-CARBON(S)	2.4KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R811	2009-000026	R-METAL PLATE	0.15OHM,10%,5W,CL,TP,5X14X	1	S.A	
R812	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R813	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R814	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R815	2001-001131	R-CARBON(S)	33KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R816	2004-001983	R-METAL(S)	2.49Kohm,1%,1/2W,AA,TP,2.4x6.	1	S.A	
R817	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R818	2004-001891	R-METAL(S)	133Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R819	2004-004048	R-METAL(S)	3.9Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R820	2001-001131	R-CARBON(S)	33KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R821	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R823	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R824	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R825	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R832	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R833	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R834	2001-000037	R-CARBON(S)	330OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RA701	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA702	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA703	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA704	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA705	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA709	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
RA710	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA711	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA712	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA713	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA714	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA715	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA716	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA717	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA718	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA719	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA720	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA721	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RA722	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA724	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA726	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA731	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	S.A	
RA732	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA733	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA734	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA735	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA736	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	S.A	
RA737	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
RA738	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA739	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RA740	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA741	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA742	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA743	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
RA744	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RA745	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA746	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA801	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	1	S.A	
RA802	2007-000965	R-CHIP	5.1Kohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RA803	2007-000083	R-CHIP	3Kohm,5%,1/10W,TP,1608	1	S.A	
RA804	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RA805	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RA806	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RA807	2007-000659	R-CHIP	27ohm,5%,1/10W,TP,1608	1	S.A	
RA901	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA902	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA903	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD901	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD902	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD903	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD904	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD905	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD906	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD907	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD908	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD909	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD910	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
RD911	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
RD912	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD913	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD914	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD915	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD916	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD917	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD918	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD919	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD920	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD921	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD922	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
RD923	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
RD924	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RD925	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
RD926	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
RD927	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD928	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD929	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD930	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD931	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD932	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD934	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD935	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RD936	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD937	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
RD938	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD939	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD941	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
RD942	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
RD943	2007-000869	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	S.A	
RD944	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
RD945	2007-000107	R-CHIP	470Kohm,5%,1/10W,TP,1608	1	S.A	
RD946	2007-000081	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	1	S.A	
RD947	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
RD948	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD949	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
RD950	2007-000821	R-CHIP	390ohm,1%,1/10W,TP,1608	1	S.A	
RD951	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD952	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD953	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD954	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD955	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD957	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RD958	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	1	S.A	
RD959	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
RD960	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD961	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
RD963	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD964	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RD965	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
RD966	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD967	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
RD968	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD969	2007-000259	R-CHIP	1.6Kohm,5%,1/10W,TP,1608	1	S.A	
RD970	2007-000087	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	1	S.A	
RD971	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RD972	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RD973	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RD974	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RD975	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RD976	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD977	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD978	2007-000763	R-CHIP	330ohm,1%,1/10W,TP,1608	1	S.A	
RD979	2007-000043	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	S.A	
RD980	2007-000043	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	S.A	
⚠ RL801S	3501-001053	RELAY-POWER	5Vdc,530mW,10000mA,1FormA,15	1	S.A	
⚠ RR430S	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
RS01	2001-001103	R-CARBON(S)	20KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RS02	2001-000002	R-CARBON(S)	200KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
RS03	2004-001382	R-METAL(S)	13Kohm,1%,1/2W,AA,TP,2.4x6.4m	1	S.A	
RS04	2001-001168	R-CARBON(S)	6.8KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
RS05	2001-001108	R-CARBON(S)	22KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RV201	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RV202	2007-000081	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV203	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV204	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV205	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV206	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV207	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV208	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV209	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RV210	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	1	S.A	
RV211	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV212	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV213	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV214	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV215	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV216	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV217	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV218	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV219	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV220	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV221	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV222	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV223	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
RV224	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
RV225	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV226	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV227	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV228	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV229	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV230	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV231	2007-000073	R-CHIP	91ohm,5%,1/10W,TP,1608	1	S.A	
RV232	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV233	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RV234	2007-001044	R-CHIP	56ohm,5%,1/10W,TP,1608	1	S.A	
RV235	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV236	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV237	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV238	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV239	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV240	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV241	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV242	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV243	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV244	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV245	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RV246	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV248	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV249	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV250	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
RV251	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV252	2007-000616	R-CHIP	24Kohm,5%,1/10W,TP,1608	1	S.A	
RV253	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV254	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV255	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV256	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV257	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV258	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV259	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV260	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV264	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV265	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV266	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV267	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV268	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV269	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV270	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV271	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV272	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV273	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV274	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV275	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV276	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV277	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV278	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV279	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV280	2007-000091	R-CHIP	12Kohm,5%,1/10W,TP,1608	1	S.A	
RV281	2007-000616	R-CHIP	24Kohm,5%,1/10W,TP,1608	1	S.A	
RV282	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
RV283	2007-000091	R-CHIP	12Kohm,5%,1/10W,TP,1608	1	S.A	
RV285	2007-000098	R-CHIP	56Kohm,5%,1/10W,TP,1608	1	S.A	
RV286	2007-000130	R-CHIP	39Kohm,5%,1/10W,TP,1608	1	S.A	
RV287	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV288	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV289	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV290	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV291	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV292	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV293	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV294	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
⚠RX801S	2002-000133	R-COMPOSITION	3.3Mohm,5%,1/2W,AA,TP,3.5x	1	S.A	
⚠RY801S	2002-001012	R-COMPOSITION	8.2Mohm,5%,1/2W,AA,TP,3.7x	1	S.A	
SUB05	0202-001477	SOLDER-CREAM	LST309-M,-,D20~45§-,96.5Sn/	1.212	S.N.A	
SW401	3409-000138	SWITCH-LEVER	30V,200mA,SP3T,-,30deg	1	S.A	
T0010	AA27-00057B	COIL CHOKE	10mH,YL-9N 15x27.5 C:9.5,0.3m	1	S.A	
T0010	AA27-00344A	COIL CHOKE	CORE(K62A),55uH,10%,0.1ohm,17	1	S.A	
T0010	AA27-00354A	COIL CHOKE	WS32Z30HE,140 uH,10%,0.300 ¥Ø	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0010	AA27-00308B	COIL CHOKE	3mH,10%,1.8ohm,0.7,14X20 C6.0	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-002836	INDUCTOR-SMD	22uH,20%,10x10.2mm	1	S.A	
T0066	AA62-30181H	HEAT SINK-ES	-,AL6063 EXTR.,2,WHT,50MM,-	1	S.N.A	
T0066	AA62-30180B	HEAT SINK-ES	-,A6063 EXTR.,2,WHT,70MM,-,	1	S.N.A	
T0066	AA62-30182F	HEAT SINK-ES	CS29M6,A6063S,T2.0,26.2,52.	1	S.N.A	
T0077	AA41-01188A	PCB MAIN	WS32Z30,CEM-1,1,A,1.6T,330X245,	1	S.N.A	
T0085	1201-002118	IC-AUDIO AMP	TDA7297SA,ZIP,15P,-,DUAL,32	1	S.A	
T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002699	IC-POSI.FIXED REG.	78D05,DPAK,3P,6.6X6.1	1	S.A	
T0087	1203-003955	IC-POSI.FIXED REG.	KA78R09CTU,TO-220F,4P	1	S.A	
T0087	1203-003958	IC-POSI.FIXED REG.	KA278R05CTU,TO-220F,4	1	S.A	
T0088	1204-000517	IC-VERTICAL DEF.	LA7845,SIP,7P,-,PLASTIC	1	S.A	
T0098	BP62-00001A	HEAT SINK	COMMANDO,A1050P,T2.0,W62.0,H50	1	S.N.A	
T0105	AA60-30001A	WASHER-PLATE	M3,ID3.5,15X8.5,T1.0,SBHG	1	S.N.A	
T0119	AA09-00514A	IC MICOM	J60D,PLASTIC,TR,28X28MM	1	S.A	
T0122	2802-001177	RESONATOR-CERAMIC	2.696MHZ,0.4%,BK,10X4.	1	S.A	
T0175	BN62-00003B	HEAT SINK-PS	CTV,A6063S,T2.5,ANODIZING,W	1	S.N.A	
T0175	BP62-00072E	HEAT SINK-PS	BP62-00072A,A6063,T2.0,160,	1	S.N.A	
T0175	AA62-00045A	HEAT SINK-PS	-,-,T1.0,-,-,DREAM,-,-,-,-,	1	S.N.A	
T0175	AA62-00045A	HEAT SINK-PS	-,-,T1.0,-,-,DREAM,-,-,-,-,	1	S.N.A	
T0198	AA95-03456D	ASSY SUB PCB-FEATURE BOX	HDMI(X),PIP(X),	1	S.N.A	
T0239	BH73-00028B	SILICON/RUBBER-HS	TV ALL,SILICON,26*30*T	1	S.N.A	
T0245	0202-001522	SOLDER-WIRE FLUX	LFA3-107,-,D1.2,96.5Sn/	0.025	S.N.A	
T0245	0202-001522	SOLDER-WIRE FLUX	LFA3-107,-,D1.2,96.5Sn/	0.025	S.N.A	
T0296	AA27-00353B	COIL LINEARITY	5.8uH,6,DR 17 X 25 (C:6.5	1	S.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,TP,43ohm/40MHz,83ohm	1	S.N.A	
T0568	3301-001569	BEAD-SMD	600ohm,2012,1000mA,TP,520ohm/90	1	S.N.A	
T0592	AA97-16544D	ASSY SMD-F/BOX	AA95-03456D	1	S.N.A	
T0607	AA61-01390A	BRACKET-IC	CT-29A20HR,SECC,T1.0	1	S.N.A	
T0900	1404-001045	THERMISTOR-NTC	4.7ohm,4.565A,2900K,-,-,-	1	S.A	
T0900	1404-001366	THERMISTOR-NTC	100ohm,-,3100K,9mW/C,-,5,	1	S.A	
T401	AA26-00255A	TRANS-H.DRIVE	EI2218,P60A,4,6.0 mH,12V,4	1	S.A	
T444	AA26-00270A	TRANS FBT	FUH29V007B,CS29Z40,2.5mH,FUR51	1	S.A	
⚠ T801S	AA26-00200B	TRANS SWITCHING	53B135-SC,WS32A20HE,-,AC	1	S.A	
⚠ VP801S	1405-000187	VARISTOR	615Vdc,1250A,12.5x7mm,TP	1	S.A	
⚠ VX801S	1405-000187	VARISTOR	615Vdc,1250A,12.5x7mm,TP	1	S.A	
XV201	2801-004004	CRYSTAL-SMD	20.25MHz,20ppm,28-AAN,13pF,2	1	S.A	
	0402-001296	DIODE-RECTIFIER	FMP-3FU,1.5KV,5A,DO-201A	1	S.A	
	0502-001230	TR-POWER	FJL6920YDTU,N,200000MW,TO-264 F	1	S.A	

ASSY COVER FRONT

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0001	AA90-05433S	ASSY COVER FRONT	CW29Z308PXXXEC	1	S.N.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	9	S.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	2	S.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	2	S.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
T0238	AA60-10050V	BOLT-HEX	-,SWRCH18A,M6,L30,HH,+,WC,-,Z	4	S.N.A	
T0569	AA61-00813D	SUPPORT-CRT	29Z30(SLIM),HIPS V0,T2.0,GR5	2	S.N.A	
T0609	AA63-60004Z	SPACER-GUM,CRT	ALL MODEL,NTR RUBBER,-,-,	4	S.N.A	
T0003	AA96-03383N	ASSY COVER P-FRONT	29Z30,XEC,HIPS HB,GR5	1	S.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	1	S.N.A	
T0069	AA60-00091J	SPACER-FELT	-,FELT,330X10,-,-,BLK,T0.5,-	2	S.N.A	
M0081	AA60-10002A	SCREW-TAPTITE	RH,+,-,-,M4,L12,ZPC(YEL),S	4	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0112	AA63-01167N	COVER-FRONT	29Z30,HIPS,HB,GR503,SV012P+B	1	S.N.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK.SIL	1	S.N.A	
T0299	AA64-04191A	WINDOW-RMC LED	32Z30,PC CLEAR	1	S.N.A	
T0175	AA96-03164A	ASSY SPEAKER P	8ohm,6*13cm,Z31,10W,SPK+W	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0382	BP61-00509C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W20.0mm	0.28	S.N.A	
T0382	BP61-00509C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W20.0mm	0.15	S.N.A	
T0023	BP64-00326A	KNOB POWER	43T9,ABS,HB,BLK,SVM3012	1	S.A	
CIS3	BP64-00331B	DECORATION-POWER	PJTV,ABS,HB,GR503,SVM30	1	S.N.A	
T0382	BP61-00495C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W30.0mm	0.2	S.N.A	

ASSY COVER REAR

M0002	AA90-05507E	ASSY COVER REAR	CW29Z308PXXXEC	1	S.N.A	
T0069	AA60-00091J	SPACER-FELT	-,FELT,330X10,-,-,BLK,T0.5,-	3	S.N.A	
M0006	AA63-01169B	COVER-REAR	29Z30,HIPS,T3.0,FV2,BLK,HQ	1	S.A	
T0522	AA65-30008A	CLAMPER CORE-CORD	-,PE,HB,-,BLK,-	1	S.N.A	
T0578	AA64-04297P	INLAY AV	Z30,32,40,PS,SHEET,T0.5,BLK,SI4	1	S.N.A	

ASSY FIXING

T0892	AA91-09851B	ASSY FIXING	CW29Z308PXXXEC,S63B,SHINE2	1	S.N.A	
M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	2	S.N.A	
⚠ T0268	AA39-10003B	CBF-POWER CORD	-,KJP-140,KLCE-2F,2.4m,HO	1	S.A	
T0070	AA61-01424A	HOLDER-CHASSIS	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0010	AA61-20284A	HOLDER	P-CORD,PP,-,-,-,BLK,VO,KE-002	1	S.N.A	
T0130	AA96-04081A	ASSY COVER P-TERMINAL BOARD	Z30,PAL,CIS,	1	S.A	
T0071	AA64-04347B	INLAY-TERMINAL	Z30,PAL,PS SHEET,T0.5,S63	1	S.N.A	
T0415	AA65-00063A	TERMINAL-BOARD	Z30(SHINE2),HIPS V0,BLK,H	1	S.N.A	
CIS1	AA65-00029A	CLAMPER CORE-WIRE	PJTV,NYLON66,OD24,DONG	1	S.N.A	
CIS1	AA65-30018A	CLAMPER CORE-WIRE	DONG-A,NYLON-66,-,-,-,	1	S.N.A	
T0121	3301-001201	CORE-FERRITE	AE,21x11x32mm,1500,280G	2	S.A	
T0121	3301-001305	CORE-FERRITE	AE,30X15X34(39)MM,1500,2800	1	S.A	

ASSY P/MATERIAL

M0113	AA92-11253B	ASSY P/MATERIAL	CW29Z306VBXXEC	1	S.N.A	
T0376	6902-000001	BAG AIR	LDPE,T0.2,L1800,W1000,TRP,,,LDPE	0.012	S.N.A	
T0524	6902-000006	BAG PE	HDPE/NITRON/HDPE,T0.02/T0.5/T0.2,	1	S.N.A	
T0214	AA60-40006A	PIN-STAPLE	AUTO,33X17.8X2.4,H18,33X17.8X	6	S.N.A	
T0172	AA69-02609A	BAND-PP	W18,CLEA,1G	5.02	S.N.A	

ASSY BOX

M0003	AA92-11432S	ASSY BOX	CW29Z308PXXXEC	1	S.N.A	
T0130	AA69-03086C	BOX-00,SET	29Z30(SEH),DY-06,AB,YEL,A1,-,	1.01	S.N.A	

ASSY CPT

T0521	AA91-09537L	ASSY CPT	A68QFZ893X002,+380MG,EUROPE	1	S.A	
⚠ T0063	AA03-00488A	CRT COLOR	A68QFZ893X102,+380mG,0.258,13.	1	S.A	
T0090	AA27-00314A	COIL DEGAUSSING-TILT	TILT,CPTTV,33.5mH,2	1	S.A	
T0089	AA27-00343C	COIL DEGAUSSING	COOLRUNNING,60Turns,4.5o	1	S.A	
CIS1	AA65-00056A	CLAMPER CORE-WIRE	32Z30,NYLON-66,V0,NTR	4	S.N.A	
T0527	AA65-00061A	CLAMPER CORE-D,COIL	NYLON-66,VO,NTR	4	S.N.A	
M0909	AA72-00030A	SPONGE	29Z30,CR VO BLK,T2.0,10,540	2	S.N.A	
T0603	AA96-03677A	ASSY TBC WIRE P	K62A,29,NTSC,2P	1	S.N.A	

ASSY ACCESSORY

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0045	AA92-11540B	ASSY ACCESSORY	CW29Z308PXXXEC,S63B,SHINE	1	S.N.A	
T0524	6902-000009	BAG PE	HDPE,T0.03,L400,W240,TRP,8,2,PE M	1	S.N.A	
T0074	AA59-00382A	REMOCON	Shine2/Catch Me,TM86,SAMSUNG,44,	1	S.A	
0	AA68-03242E	MANUAL FLYER-01,SAFETY GUIDE	All Model,S	1	S.N.A	
	AA68-03575A	MANUAL FLYER-01,REGISTRATION C	XEU,ENG,U	1	S.N.A	
	AA68-03575B	MANUAL FLYER-010,REGISTRATION	XEG,GERMAN	1	S.N.A	
	AA68-03575C	MANUAL FLYER-01,REGISTRATION C	XEF,FRENC	1	S.N.A	
	AA68-03575D	MANUAL FLYER-02,REGISTRATION C	XEC,SPANI	1	S.N.A	
	AA68-03575E	MANUAL FLYER-02,REGISTRATION C	XET,ITALY	1	S.N.A	
	AA68-03575F	MANUAL FLYER-01,REGISTRATION C	XEN,DUTCH	1	S.N.A	
	AA68-03575G	MANUAL FLYER-01,REGISTRATION C	XEP,PORTU	1	S.N.A	
M0284	AA68-03784A	MANUAL USERS-02	Comm,Samsung,English,Eur	1	S.N.A	
M0284	AA68-03784B	MANUAL USERS-02	comm,Samsung,French,Euro	1	S.N.A	
M0284	AA68-03784C	MANUAL USERS-02	comm,Samsung,German,Euro	1	S.N.A	
M0284	AA68-03784D	MANUAL USERS-02	comm,Samsung,Italian,Eur	1	S.N.A	
M0284	AA68-03784E	MANUAL USERS-02	comm,Samsung,Dutch,Europ	1	S.N.A	
M0284	AA68-03784F	MANUAL USERS-02	comm,Samsung,Hungarian,E	1	S.N.A	
M0284	AA68-03784G	MANUAL USERS-02	comm,Samsung,Spanish,Eur	1	S.N.A	
M0284	AA68-03784H	MANUAL USERS-02	comm,Samsung,Polish,Euro	1	S.N.A	
M0156	AA68-03784J	MANUAL USERS-01	comm,Samsung,Russian,Eur	1	S.N.A	
M0284	AA68-03784K	MANUAL USERS-02	comm,Samsung,Portuguese,	1	S.N.A	
M0284	AA68-03784L	MANUAL USERS-02	comm,Samsung,Swedish,Eur	1	S.N.A	
M0284	AA68-03784M	MANUAL USERS-02	comm,Samsung,Finnish,Eur	1	S.N.A	
M0284	AA68-03784N	MANUAL USERS-02	comm,Samsung,Norwegian,E	1	S.N.A	
M0284	AA68-03784P	MANUAL USERS-02	comm,Samsung,Dannish,Eur	1	S.N.A	
M0284	AA68-03784Q	MANUAL USERS-02	comm,Samsung,Czech,Europ	1	S.N.A	
M0284	AA68-03784R	MANUAL USERS-02	comm,Samsung,Bulgarian,E	1	S.N.A	
M0284	AA68-03784S	MANUAL USERS-02	comm,Samsung,Slovakian,E	1	S.N.A	
M0284	AA68-03784T	MANUAL USERS-02	comm,Samsung,Slovenian,E	1	S.N.A	
M0284	AA68-03784U	MANUAL USERS-02	comm,Samsung,Serbian,Eur	1	S.N.A	
M0284	AA68-03784V	MANUAL USERS-02	comm,Samsung,Croatian,Eu	1	S.N.A	
M0284	AA68-03784W	MANUAL USERS-02	comm,Samsung,Greek,Europ	1	S.N.A	
M0284	AA68-03784X	MANUAL USERS-02	comm,Samsung,Turkish,Eur	1	S.N.A	
M0284	AA68-03784Y	MANUAL USERS-02	comm,Samsung,Rumanian,Eu	1	S.N.A	
T0076	BN68-00514B	MANUAL FLYER-02,WARRANTY CARD	PDP/LCD TV	1	S.N.A	
T0059	BN68-00907A	MANUAL FLYER-CARD	COMM,SAMSUNG,18 LANG,E	1	S.N.A	
T0056	AA68-03785G	MANUAL FLYER-S/D	comm,Samsung,Italian,It	1	S.N.A	

MEMO

6. Troubleshooting

6-1 Checkpoints by Error Mode

■ Power LED: Check that the LED works when turning the Master Switch ON/OFF

■ LED Indicators: See table 6-2-1 Basic Troubleshooting: LED Diagnosis on the Front Panel.

■ In case of a power failure or abnormal screen, check the following items.

1) Check that the power cord is correctly connected to a 220V wall outlet.
2) Check that the Master Switch has been pressed.
3) Check that the transmitter is turned on.
4) Check that transmitter device selection is set to TV.
5) Check that the signal cable is properly connected.
6) Check that channel setting has been set.

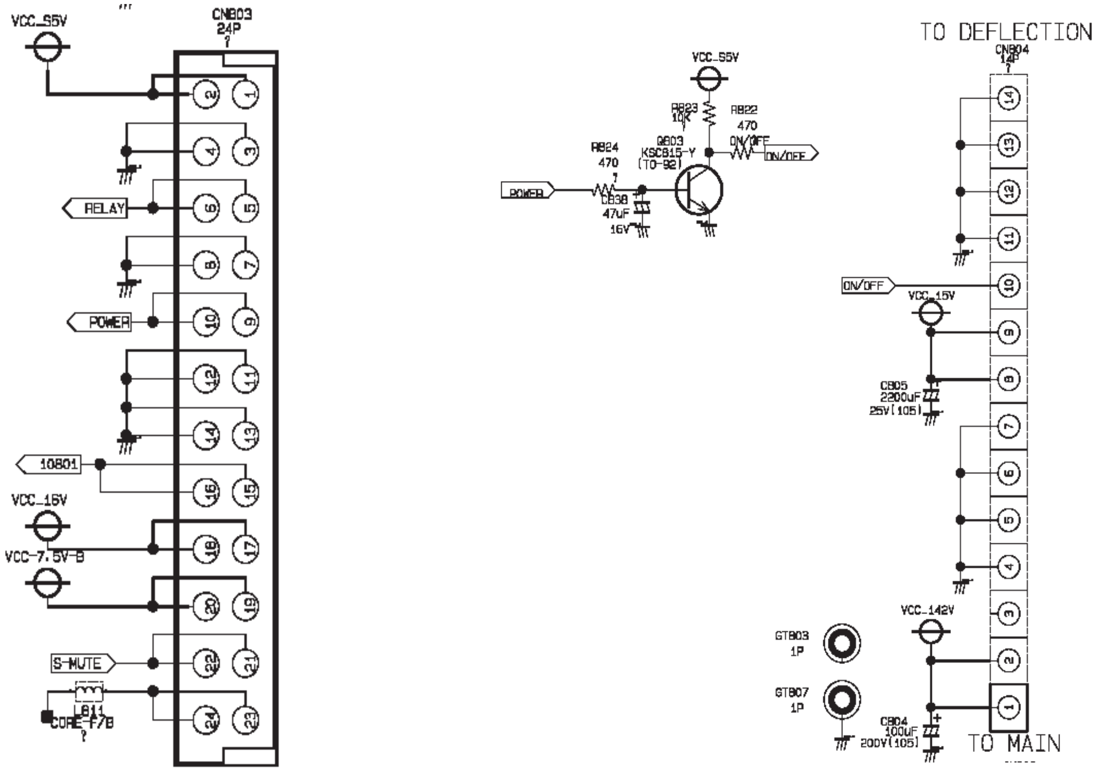
6-1-1 Basic Approaches for Troubleshooting

■ Troubleshooting Mechanism :

- The Main Board has Power part which supplies power to Deflection and Feature Box.
- The Feature Box receives all signal inputs,the signal-processed signal is sent to CRT Ass'y.
- Deflection and Focus are controlled by the Main Board.

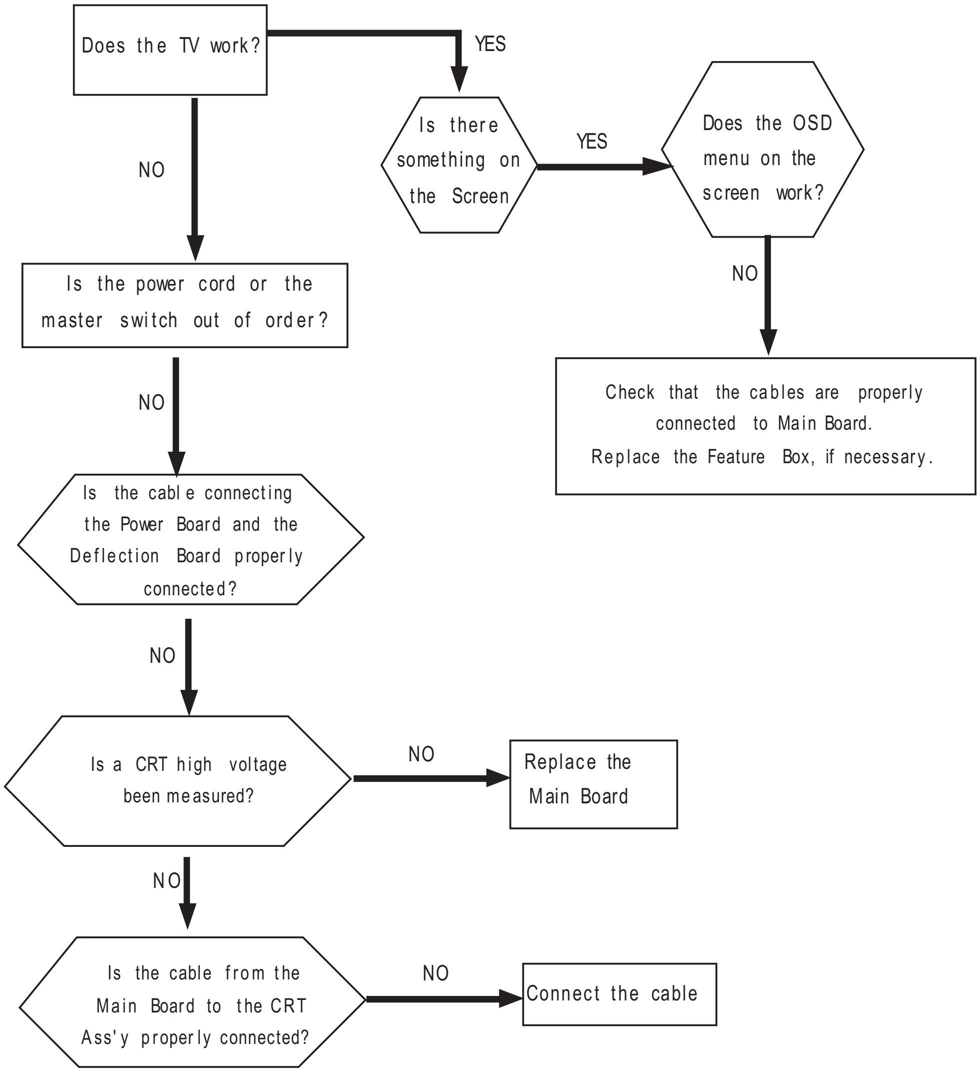
■ Troubleshooting by Modules

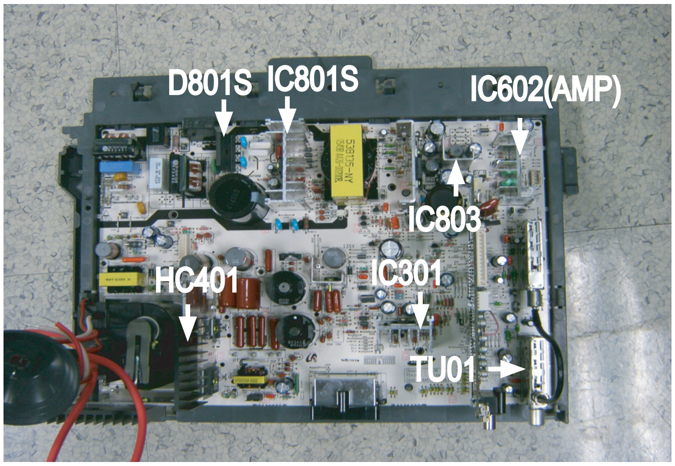
1) Enter Service Mode
(In SET Stand-By Status,if you press "Info"→"Menu"→"Mute" and "Power" button in sequence on the remote control, the screen is turned on and the Service Mode screen appears.)
2) Check if the System Board is out of order.
Press OPTION → TEST PATTERN → Right direction key:
The COLOR BAR, BLACK pattern and WHITE pattern are displayed on the screen.
If the pattern is not displayed or is displayed abnormally, Feature Box is out of order.
3) Check if the Power part of the Main Board Board, which supplies power to Feature Box, is out of order.
If you cannot turn the screen on by pressing the POWER ON/OFF button or the screen repeatedly turns on and off when pressing the POWER ON/Off button, check if the Power part of the Main Board is out of order. (Refer to the circuit diagram)


VCC_S5V
CNB03
24P
RELAY
POWER
10801
VCC_15V
VCC-7.5V-B
S-MUTE
LB11
CORE-F/B
VCC_S5V
RB23
10K
RB22
470
ON/OFF
RB24
470
QB03
KSC815-Y
(TO-92)
POWER
CB38
47uF
16V
ON/OFF
TO DEFLECTION
CNB04
14P
ON/OFF
VCC_15V
CB05
2200uF
25V(105)
VCC_142V
GTB03
1P
GTB07
1P
CB04
100uF
200V(105)
TO MAIN

4) Check if the Deflection part of the Main Borad is out of order.
When the screen is not properly displayed and the left or right side of the picture is shrunk, or the top or bottom of the screen is expanded or shrunk, check if the Deflection Board is out of order.

6-1-2 Flow Chart for Malfunction


Does the TV work?
YES
NO
Is there something on the Screen
YES
Does the OSD menu on the screen work?
NO
Check that the cables are properly connected to Main Board. Replace the Feature Box, if necessary.
Is the power cord or the master switch out of order?
NO
Is the cable connecting the Power Board and the Deflection Board properly connected?
NO
Is a CRT high voltage been measured?
NO
Replace the Main Board
NO
Is the cable from the Main Board to the CRT Ass'y properly connected?
NO
Connect the cable


D801S
IC801S
IC602(AMP)
IC803
HC401
IC301
TU01

6-2 Trouble-shooting with New Features

6-2-1 Installation & Connection

Problem	Solution
The power does not turn on.	Check if the power cord is properly connected.
Air broadcasting does not work.	Check if the antenna is properly installed.
Cable broadcasting does not work.	Subscribe to a local cable broadcasting firm and get support.
Satellite broadcasting does not work.	Install a satellite antenna (Parabola) and connect it to the TV.

6-2-2 Menu & Remote Control

Problem	Solution
The remote control does not work.	■ Press the Select Device button to select the TV or external device. ■ Replace the battery of the remote control with a new one. ■ Insert the battery making sure the polarity (+,-) is correct. ■ Check if the angle or the distance is sufficient, or if there is any interference between the product and the remote control. ■ Make sure the user has pressed the correct button. ■ To avoid direct sunlight to the receiving panel of the TV, remove any indoor lighting or change the location of the TV. ■ Check if the power switch at the back left of the TV is turned on.
Cannot change the channel with the remote control.	■ Press the Select Device button to select the TV. ■ Change the channel using the remote control of the cable or satellite receiver.
Cannot select an A/V channel.	Press the TV/AV button and check if the AV item is grayed out. When the AV item is grayed out, you cannot select an A/V channel. Check if the connector is properly connected.
Cannot select a menu.	Check if the menu is grayed out. If a menu is grayed out, it cannot be selected.

6-2-3 Screen

Problem	Solution
The screen is black and there is no sound.	■ Check if the power cord is properly connected. ■ Turn on the power. ■ Select an AV channel that corresponds to the external device.
Only the screen is blank/it is dark or too bright.	Adjust the screen brightness.
The screen is blue/the external channel is not displayed.	■ Check if the connector is properly installed. ■ Select an AV channel that corresponds to the external device.
The screen overlaps (double/triple).	■ Check if the antenna is properly installed. ■ Adjust the position, angle or direction of the antenna.
The screen is snowy or unclear. The picture quality gets worse when it is windy	■ Check if the antenna has been bent or moved by the wind. ■ Check the antenna for its lifetime. (Normally 3 - 5 years, 1-2 years near the coast)
Dotted or semi-dotted lines are displayed on the screen.	Install the antenna as far away from the road as possible.
The screen is black and white.	■ Adjust the color density. ■ Check if the connector is properly installed.
The colors of the screen are odd/strange.	Adjust the color tones.
Unusual lines appear on the screen.	Keep the antenna away from the power cord or connectors if possible.
Unusual lines appear on the screen when watching or recording to video.	Keep the video player as far away from the TV as possible.

6-2-4 Sound

Problem	Solution
There is no sound.	■ Increase the volume. ■ Press the Mute button.
The sound is very low.	■ Increase the volume. ■ Set the auto volume control to ON.
There is a lot of noise.	Keep the antenna away from the power cord or connectors if possible.
The selected language does not appear.	Press the Multiplex button to select the TV.

6-2-5 Channel

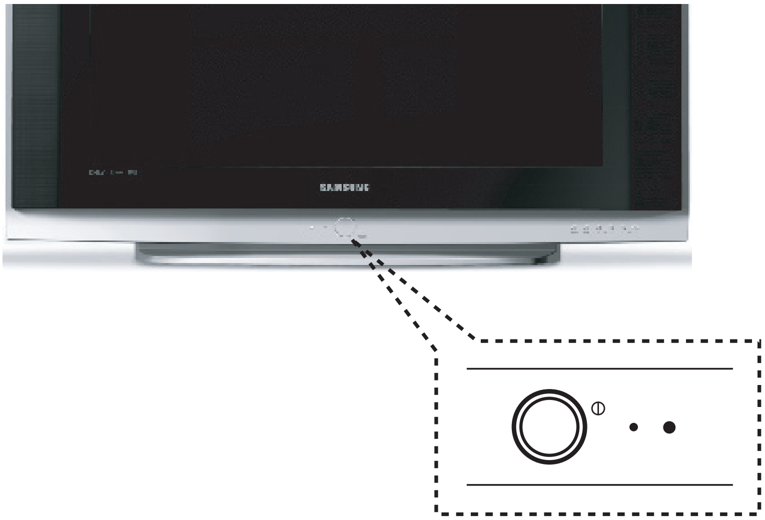
Problem	Solution
There are no channels available.	■ Check if the antenna is properly installed. ■ Press the Auto Channel button to store channels. ■ Contact your local broadcasting service station.
Some channels are not available.	■ Adjust the position, angle or direction of the antenna. ■ Activate the Reception Sensitivity Boost feature. ■ Contact your local broadcasting service station. ■ Use the number keys to select a specific channel and press Store/Clear to memorize it.
Only the UHF (14-69) channels are not available.	Check if the antenna is able to receive UHF signals.

6-2-6 Others

Problem	Solution
The TV makes a noise as if something is dropping inside.	This noise may occur when the plastic material inside the TV expands or contracts according to the seasonal temperature or humidity. This is like the noise from a furniture/cabinet/sink unit, and there is no need for concern.

6-3 Troubleshooting Procedures by Error Modes

6-3-1 Basic Troubleshooting: Diagnosis of LED on the Front Panel



● : Light is On
◑ : Light is Blinking
○ : Light is Off

Power	Description
○	This happens when the Master Switch is not pressed or the power cord is disconnected.
●	This happens when the power cord is connected and the power switch is pressed. If you cannot set the power switch on by pressing it, check the power switch Ass'y.
○→◑→●	If you press the power switch of the transmitter or the channel key on the remote control when in St-BY status, the screen will be turned on. If the LED blinks and the screen is not displayed, check the connection between the Power and the System Board.

6-3-2 Troubleshooting by the Checksum

■ Diagnosis of trouble by the checksum is neither reliable nor convenient.
You can only use the checksume of the current direct-view TV to determine whether the software is corrupted or not.
The Checksum value is determined according to the version of the software loaded on the set.
Therefore, you can determine whether the software has been properly downloaded, if you know the correct checksum for that version of the software.

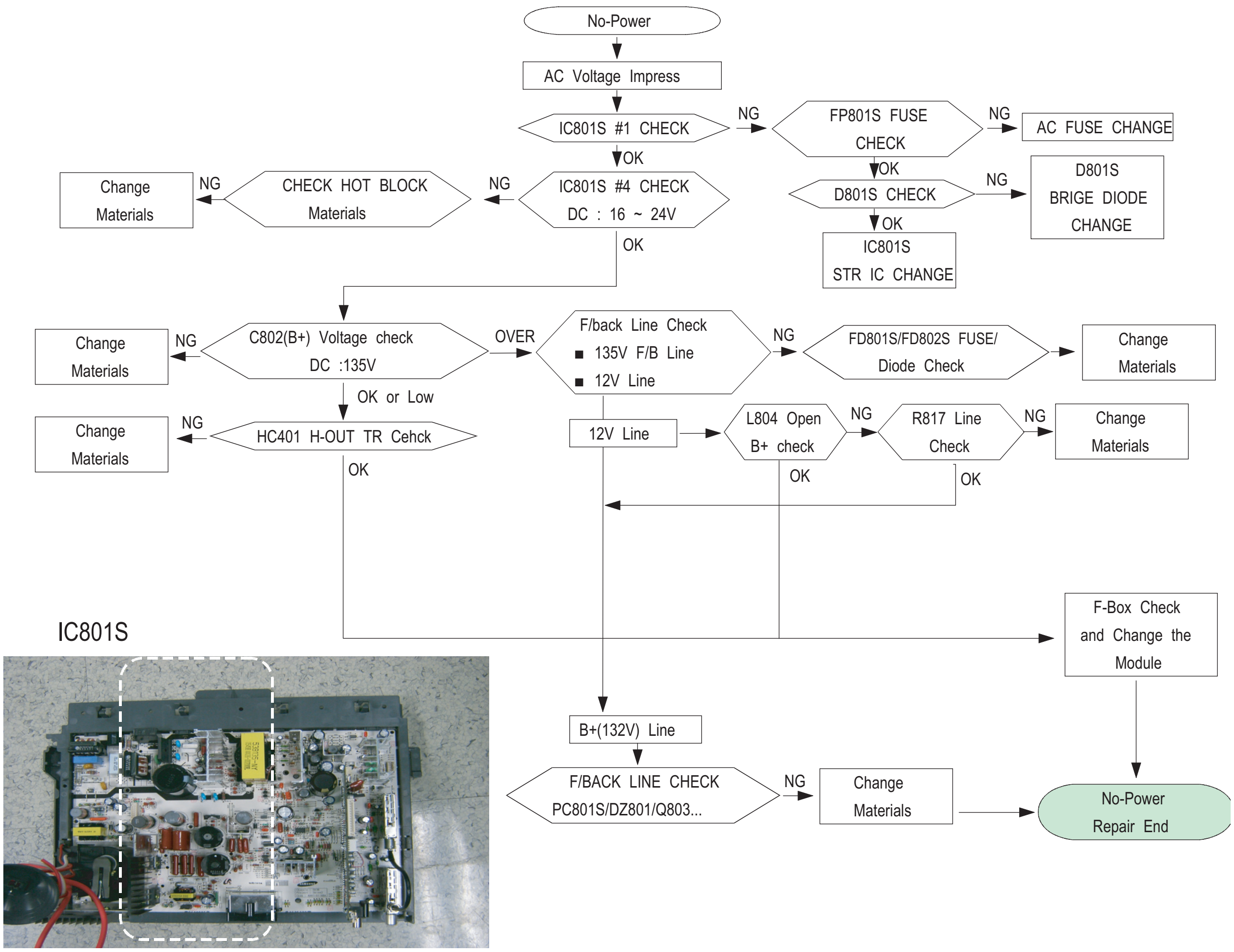
You can check the checksum according in the following order.
Factory Mode → Checksum → Right Button → Calculate Checksum → Output Checksum (e.g. 0xab2b)

■ Checksum Examples
T_COREOAKR1_1010 : checksum = 0xab2b
T_COREOAKR1_1014 : checksum = 0x4faa

6-4 Troubleshooting Procedures by ASS'Y

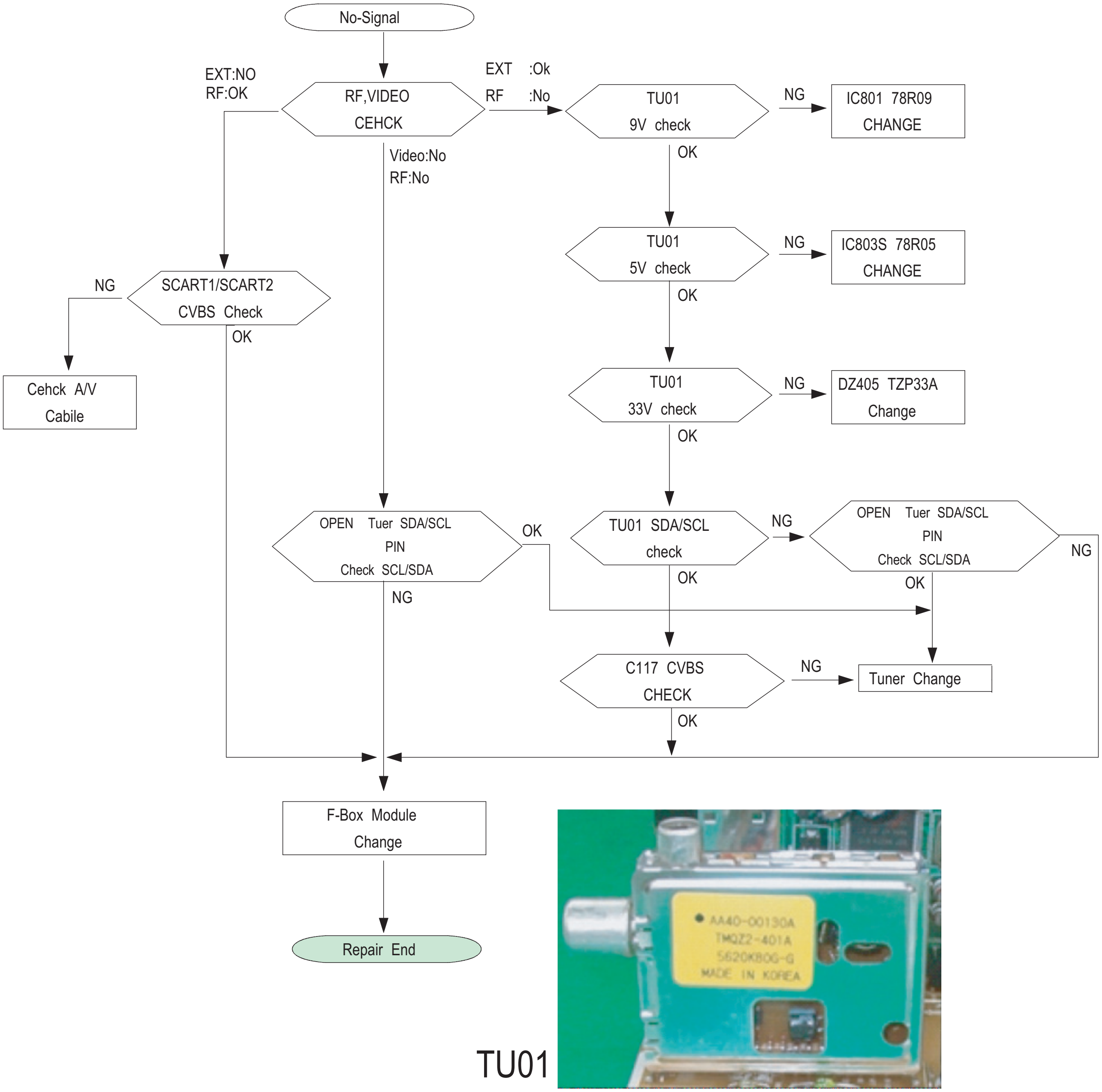
6-4-1 NO Power

1. Power part of the Main Board Check


No-Power
AC Voltage Impress
IC801S #1 CHECK
NG
FP801S FUSE CHECK
NG
AC FUSE CHANGE
OK
OK
D801S CHECK
NG
D801S BRIGE DIODE CHANGE
OK
IC801S STR IC CHANGE
Change Materials
NG
CHECK HOT BLOCK Materials
NG
IC801S #4 CHECK DC : 16 ~ 24V
OK
Change Materials
NG
C802(B+) Voltage check DC :135V
OVER
F/back Line Check
■ 135V F/B Line
■ 12V Line
NG
FD801S/FD802S FUSE/ Diode Check
Change Materials
OK or Low
Change Materials
NG
HC401 H-OUT TR Cehck
OK
12V Line
L804 Open B+ check
NG
R817 Line Check
NG
Change Materials
OK
OK
F-Box Check and Change the Module
IC801S
B+(132V) Line
F/BACK LINE CHECK PC801S/DZ801/Q803...
NG
Change Materials
No-Power Repair End

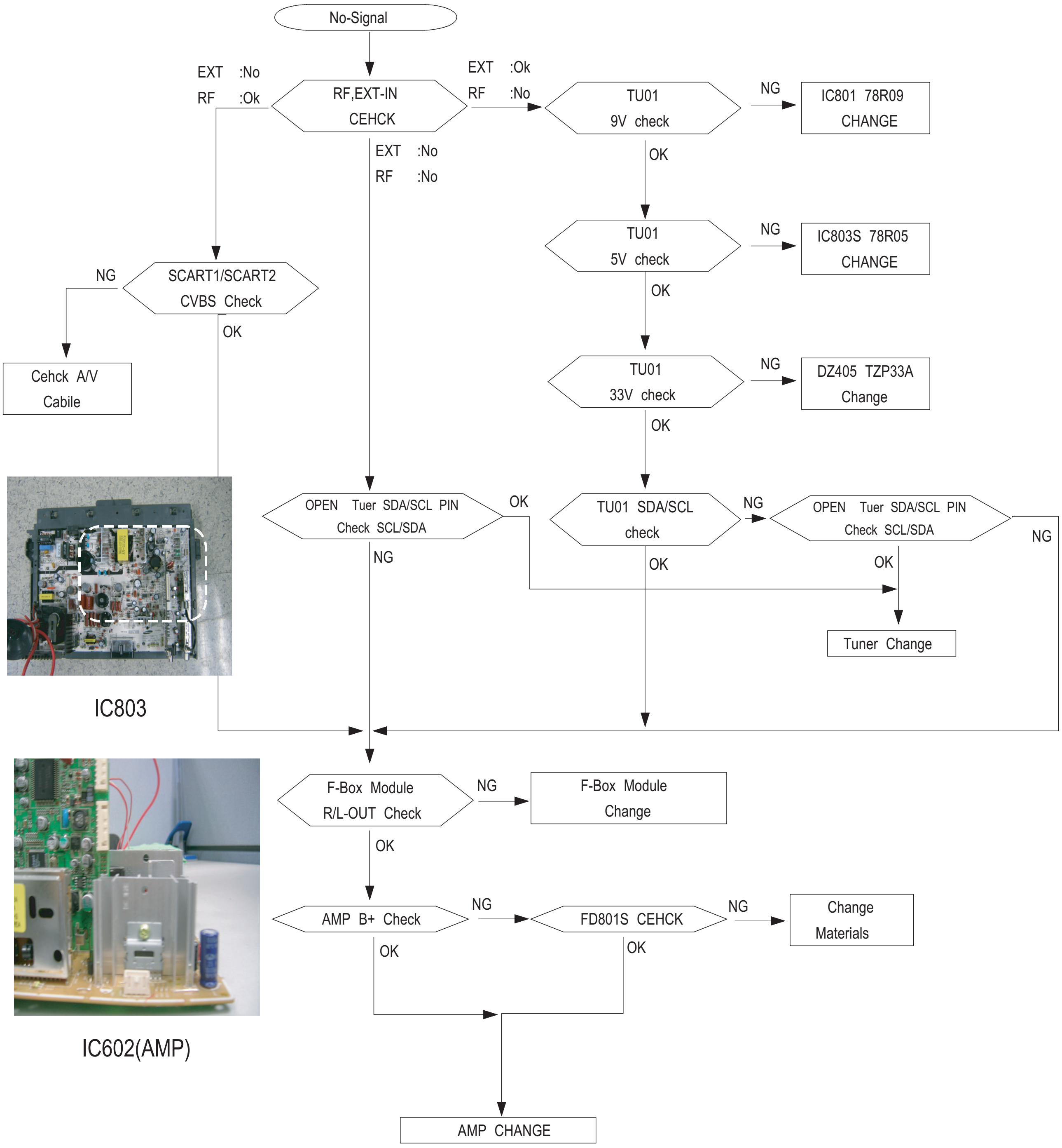
6-4-2 NO Video

1. when the power is normal


No-Signal
RF,VIDEO CEHCK
EXT:NO
RF:OK
EXT :Ok
RF :No
Video:No
RF:No
TU01 9V check
NG
IC801 78R09 CHANGE
OK
TU01 5V check
NG
IC803S 78R05 CHANGE
OK
TU01 33V check
NG
DZ405 TZP33A Change
OK
SCART1/SCART2 CVBS Check
NG
Cehck A/V Cabile
OK
OPEN Tuer SDA/SCL PIN Check SCL/SDA
OK
NG
TU01 SDA/SCL check
NG
OPEN Tuer SDA/SCL PIN Check SCL/SDA
OK
NG
OK
C117 CVBS CHECK
NG
Tuner Change
OK
F-Box Module Change
Repair End
TU01
AA40-00130A
TMQZ2-401A
5620KB0G-G
MADE IN KOREA

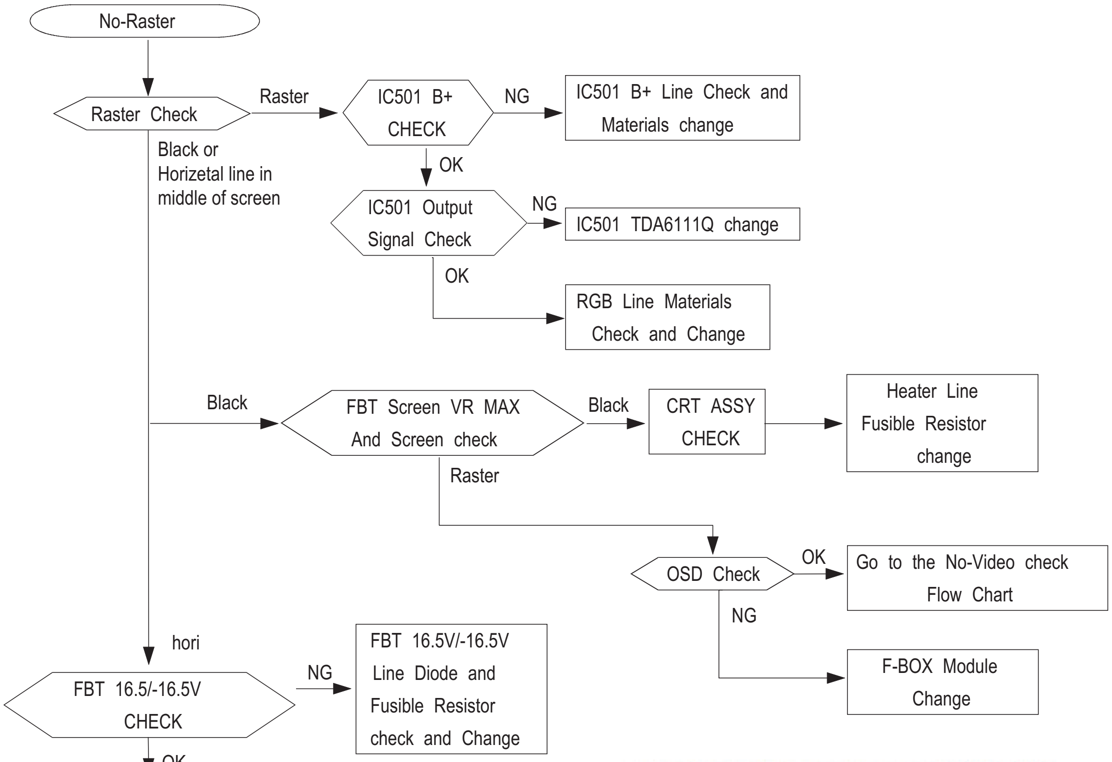
6-4-3 No Sound

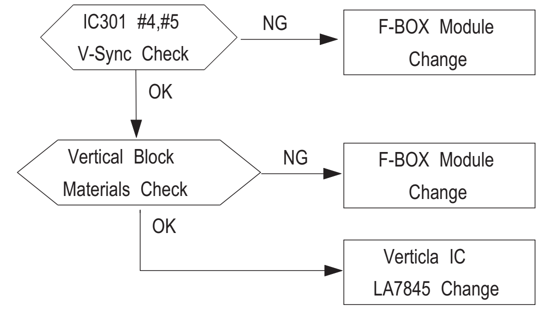
1. when the power is normal

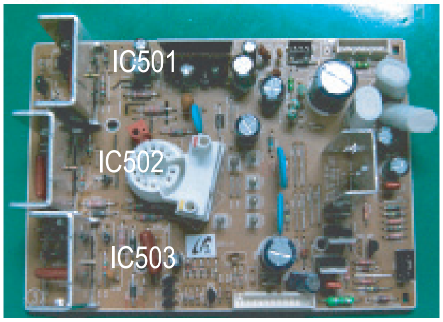

No-Signal
RF,EXT-IN CEHCK
EXT :No
RF :Ok
EXT :Ok
RF :No
EXT :No
RF :No
TU01 9V check
NG
IC801 78R09 CHANGE
OK
TU01 5V check
NG
IC803S 78R05 CHANGE
OK
TU01 33V check
NG
DZ405 TZP33A Change
OK
NG
SCART1/SCART2 CVBS Check
OK
Cehck A/V Cabile
OPEN Tuer SDA/SCL PIN Check SCL/SDA
OK
NG
TU01 SDA/SCL check
NG
OPEN Tuer SDA/SCL PIN Check SCL/SDA
NG
OK
OK
Tuner Change
IC803
F-Box Module R/L-OUT Check
NG
F-Box Module Change
OK
AMP B+ Check
NG
FD801S CEHCK
NG
Change Materials
OK
OK
AMP CHANGE
IC602(AMP)

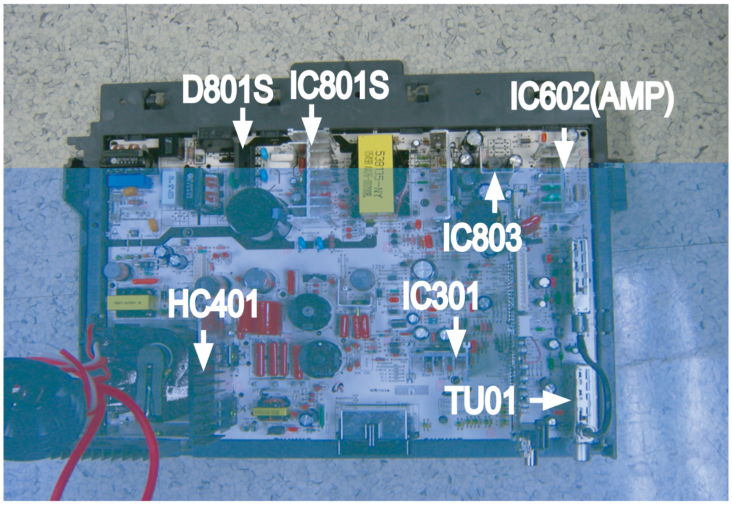
6-4-4 No Raster

1. when the H/V is normal


No-Raster
Raster Check
Raster
IC501 B+ CHECK
NG
IC501 B+ Line Check and Materials change
OK
IC501 Output Signal Check
NG
IC501 TDA6111Q change
OK
RGB Line Materials Check and Change
Black or Horizetal line in middle of screen
Black
FBT Screen VR MAX And Screen check
Black
CRT ASSY CHECK
Heater Line Fusible Resistor change
Raster
OSD Check
OK
Go to the No-Video check Flow Chart
NG
F-BOX Module Change
hori
FBT 16.5/-16.5V CHECK
NG
FBT 16.5V/-16.5V Line Diode and Fusible Resistor check and Change


OK
IC301 #4,#5 V-Sync Check
NG
F-BOX Module Change
OK
Vertical Block Materials Check
NG
F-BOX Module Change
OK
Verticla IC LA7845 Change


IC501
IC502
IC503


D801S
IC801S
IC602(AMP)
IC803
HC401
IC301
TU01

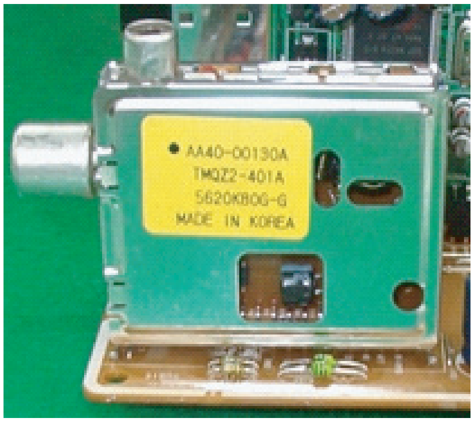
6-5 Troubleshooting by Blocks

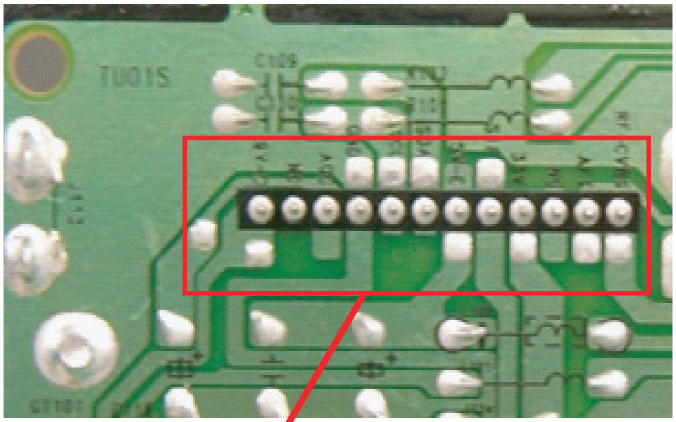
6-5-1 Troubleshooting System Boards

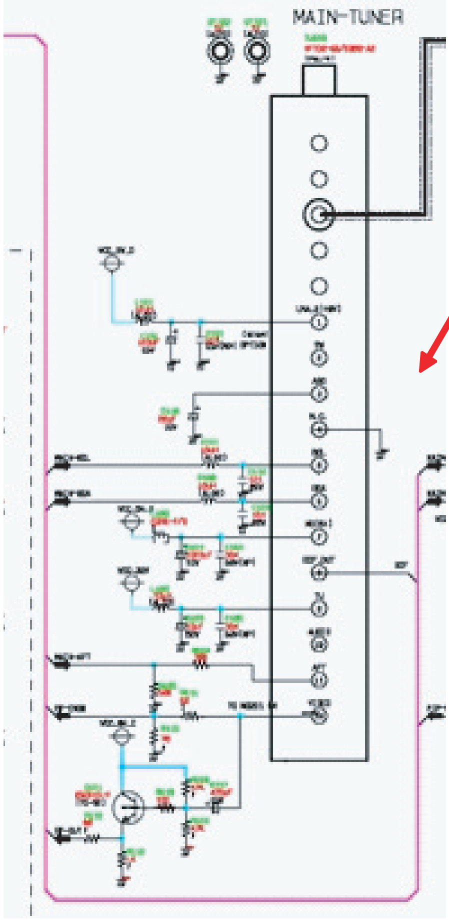
1. Tuner Diagnosis

If no signal is received even though the RF signal from the external aerial is connected to the MAIN Board Tuner, check the following items.

- Supply Power: 5V, 9V, 33V
- Check for an RF defect: Check the CVBS output
- Check for an AUDIO defect: Check the SiF Signal output


AA40-00130A
TMQZ2-401A
5620K806-G
MADE IN KOREA


TU01S
C109
RF CVBS

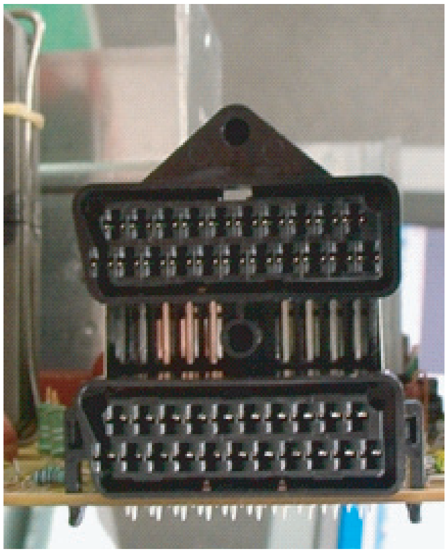


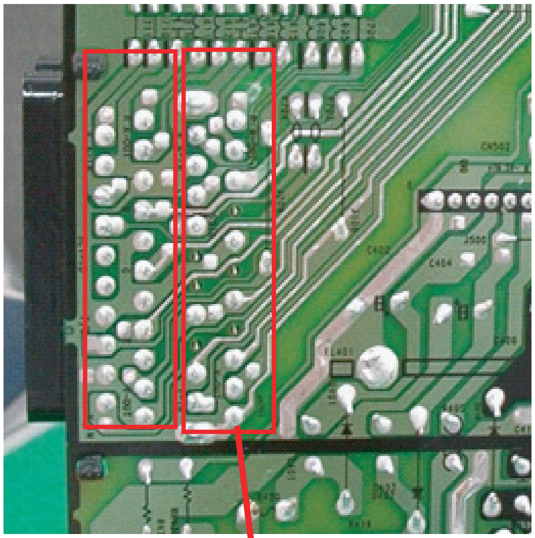
2. External Input Diagnosis

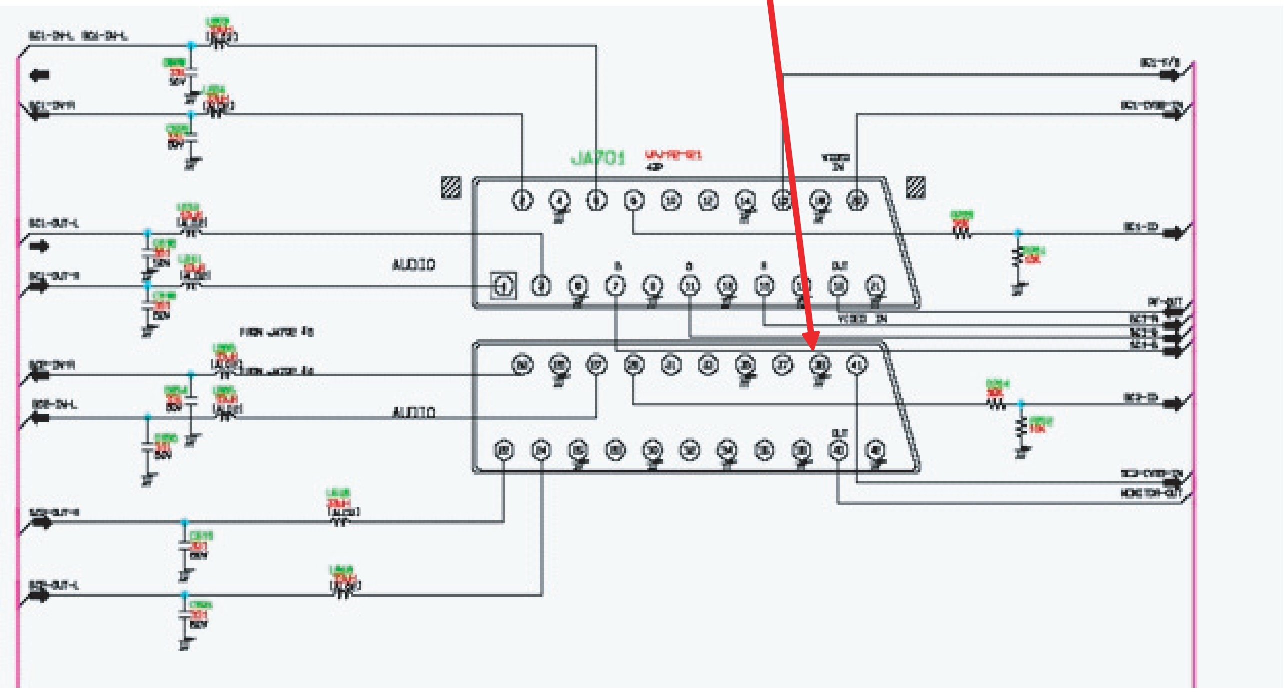
It receives the EXT1/EXT2/signal and consists of monitor output (video and audio).

The signal is input to VSP9402 through the port. If no signal input/output is detected, check the following items.

- Power supply : VSP9402(3.3V,1.8V) , CXA2180(5V)
- Check if the input and output jacks are defective.



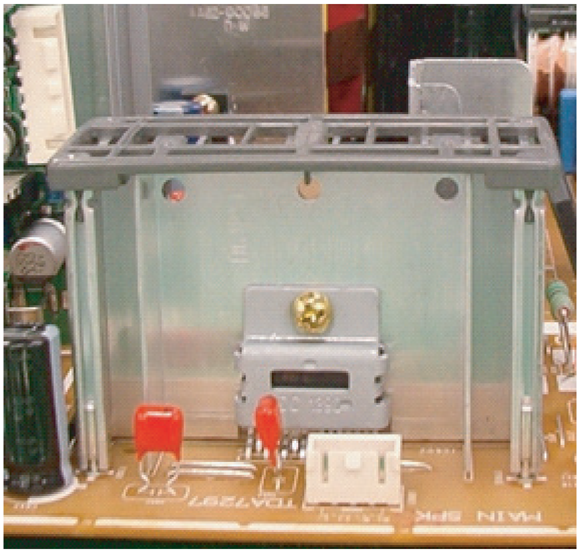


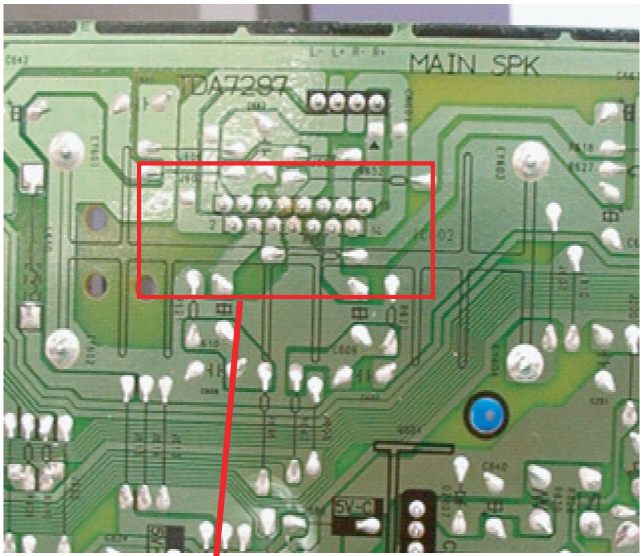

JA701
AUDIO
AUDIO
VIDEO IN
OUT
VIDEO IN
OUT

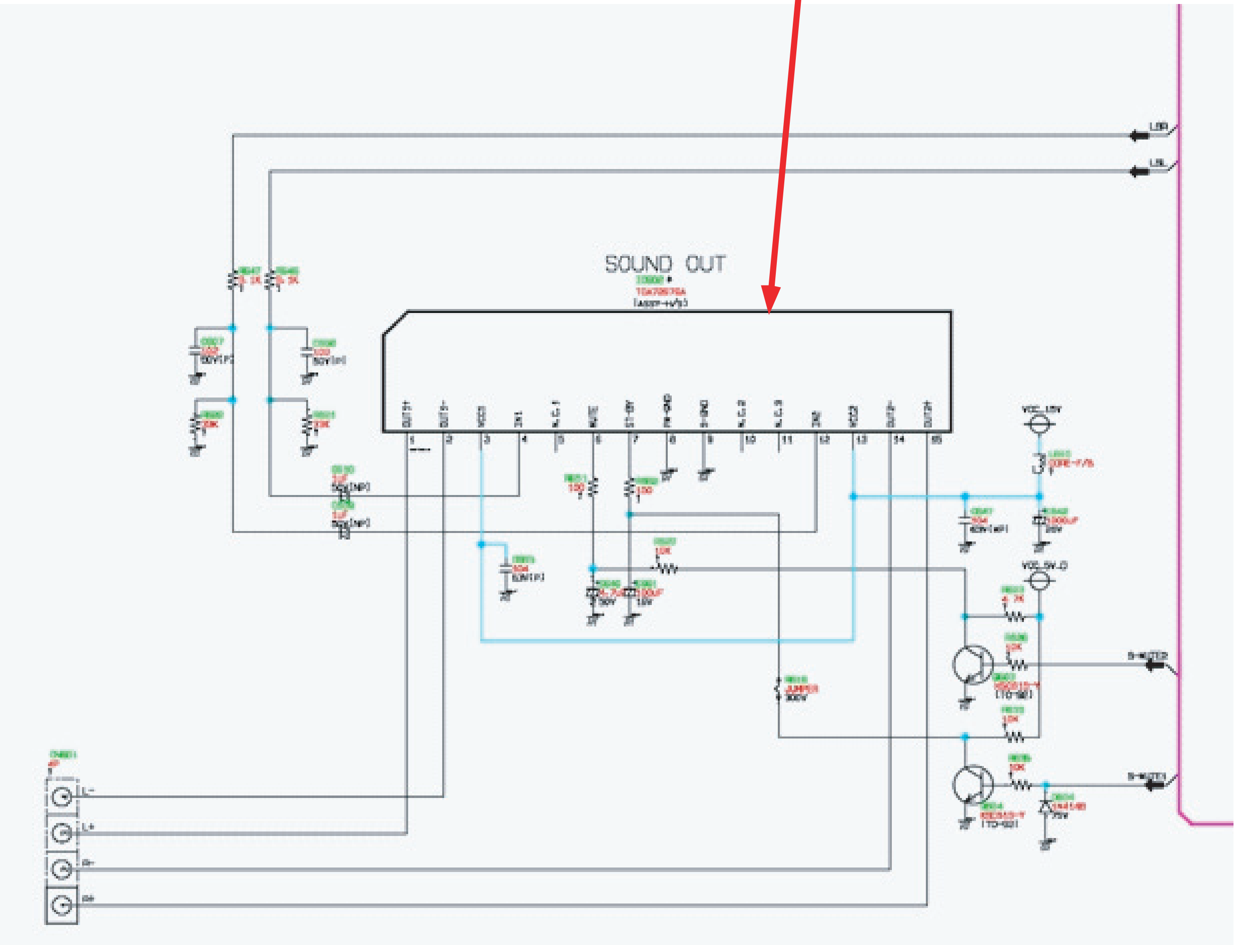
3. TDA7297(Audio AMP) Diagnosis

The signal is received from the Audio Processor (VCT69xyP) and sound is output at 10W + 10W power.

- Power supply :15V
- Check for input defects : L/R
- Check for output defects : L+, L-, R+, R-


TDA7297
MAIN SPK


L- L+ R- R+
MAIN SPK
TDA7297
5V-C

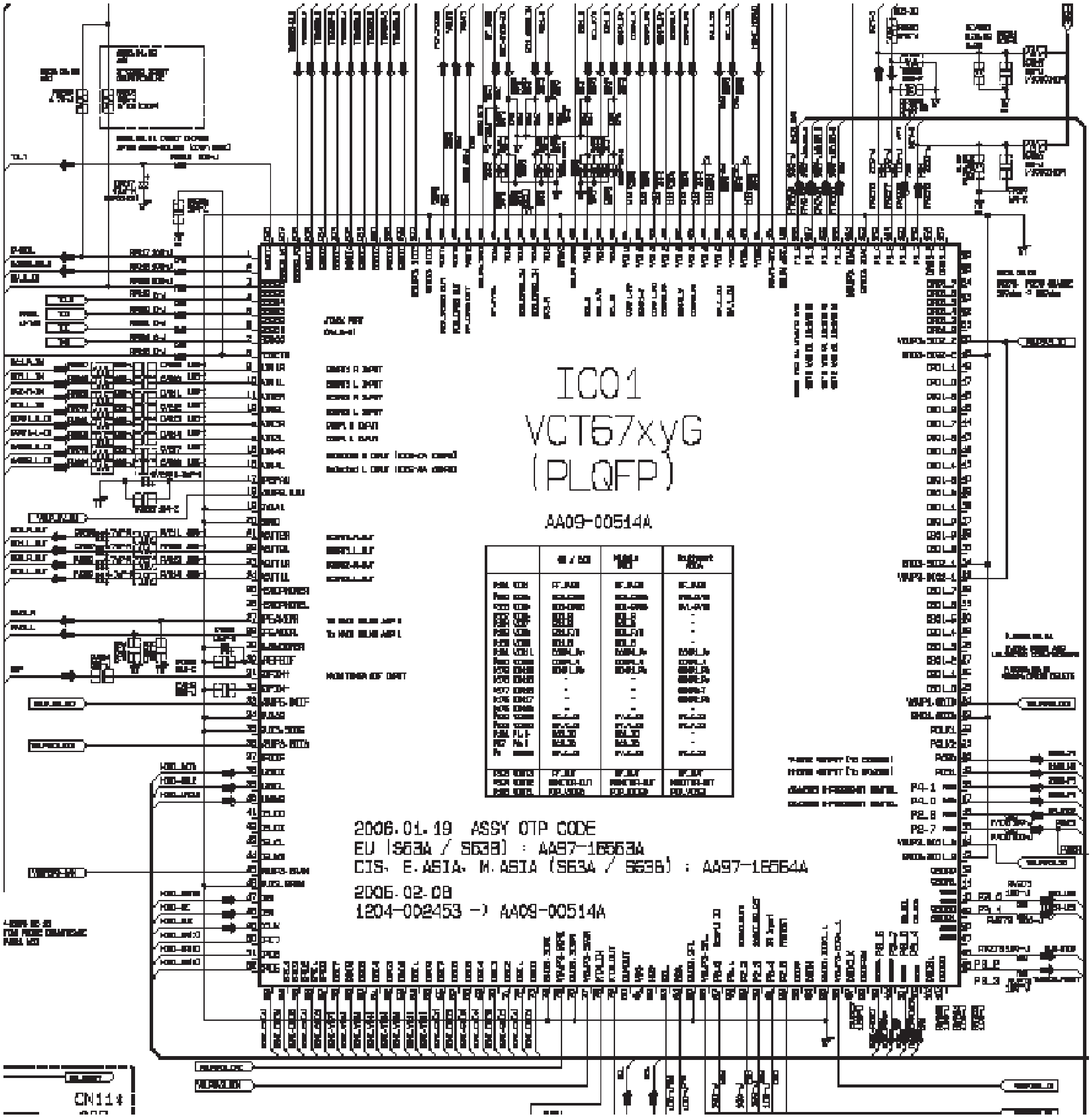

SOUND OUT
OUT1+
OUT1-
VCC1
IN1
N.C.1
MUTE
ST-BY
PW-GND
S-GND
N.C.2
N.C.3
IN2
VCC2
OUT2-
OUT2+
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
VCC_15V
VCC_5V_D
S-MUTE2
S-MUTE1
L-
L+
R-
R+

4. VCT67xyG Diagnosis

It processes the one chip that Micom, Switching, Decoder

- Power supply : 8V, 5V, 3.3V, 1.8V
- Check for input defects : RF, SCL, SDA, S-Video(Y,C), SIF,
  Scart 1/2, Component 1/2, HDMI
- Check for output defects : RF, Monitor out, R/G/B
  Sound L/R

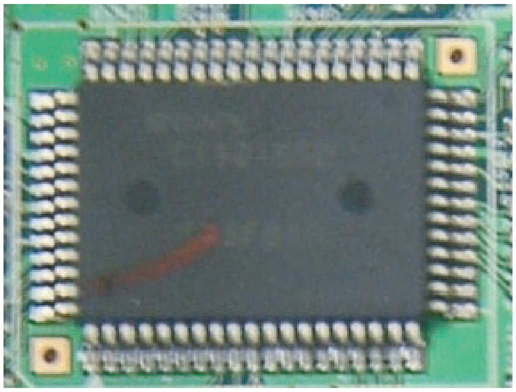
SAMSUNG
DNIe™
SMP 67736 B2 5DQ

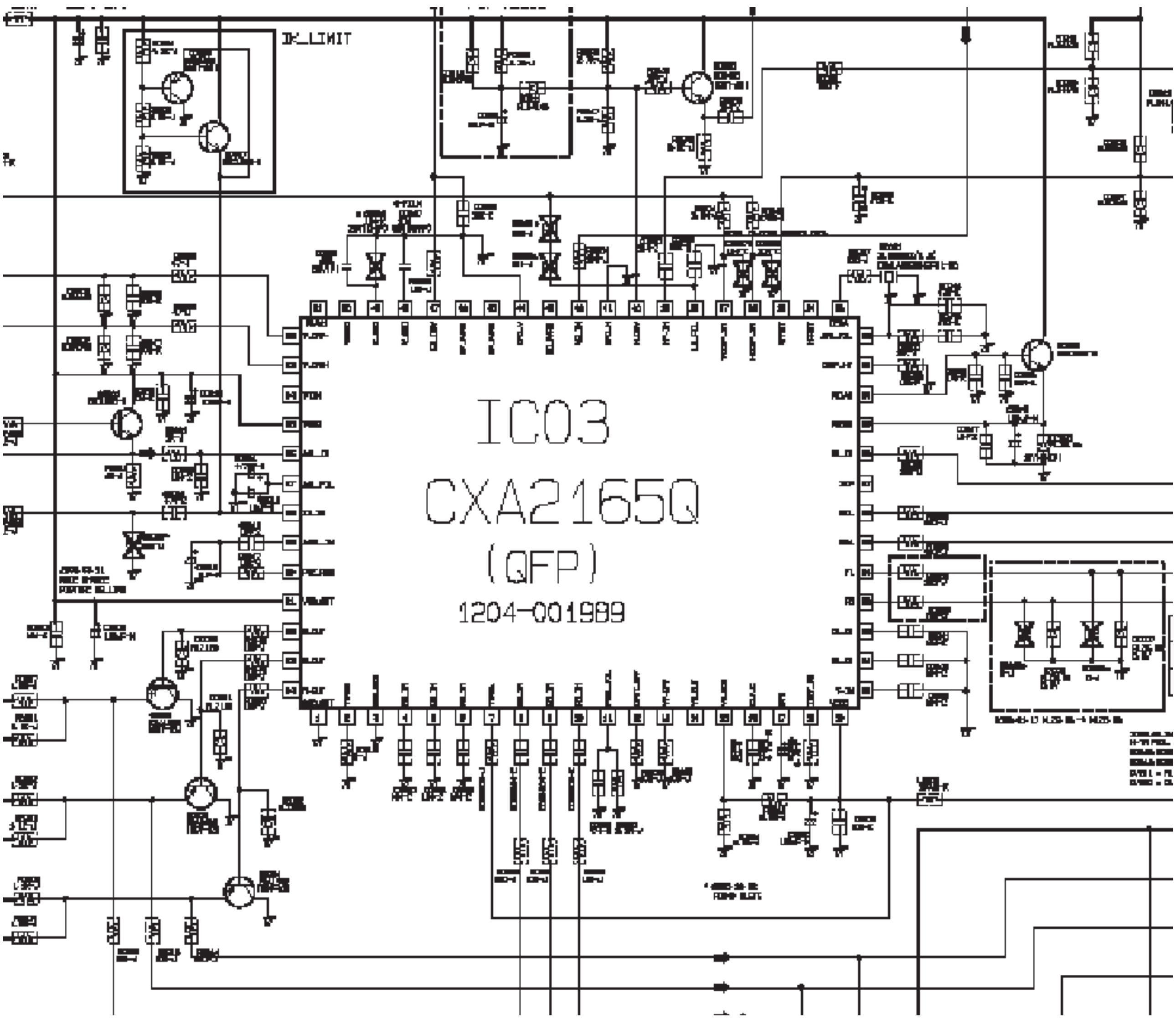

IC01
VCT67xyG
(PLQFP)
AA09-00514A
2006.01.19 ASSY OTP CODE
EU (S63A / S63B) : AA97-16563A
CIS, E.ASIA, M.ASIA (S63A / S63B) : AA97-16564A
2006.02.08
1204-002453 -> AA09-00514A
CN114

5. CX2165 Diagnosis

The Y/Pb/Pr signal is received from VCT69xyP and the signal is output as R/G/B. It also outputs the V/H Drive, E/W and performs the ABL and EHT operation. If V-Drive output is not detected, check for an IC defect.

- Power supply : 5V, 9V
- Check for input defects : R/G/B, H/V
- Check for output defects :

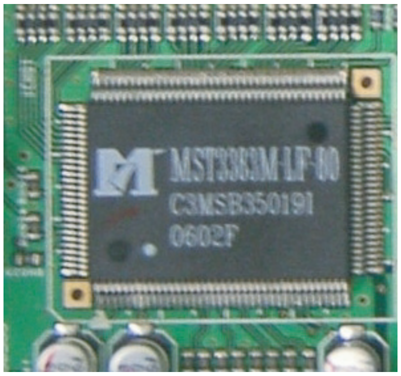


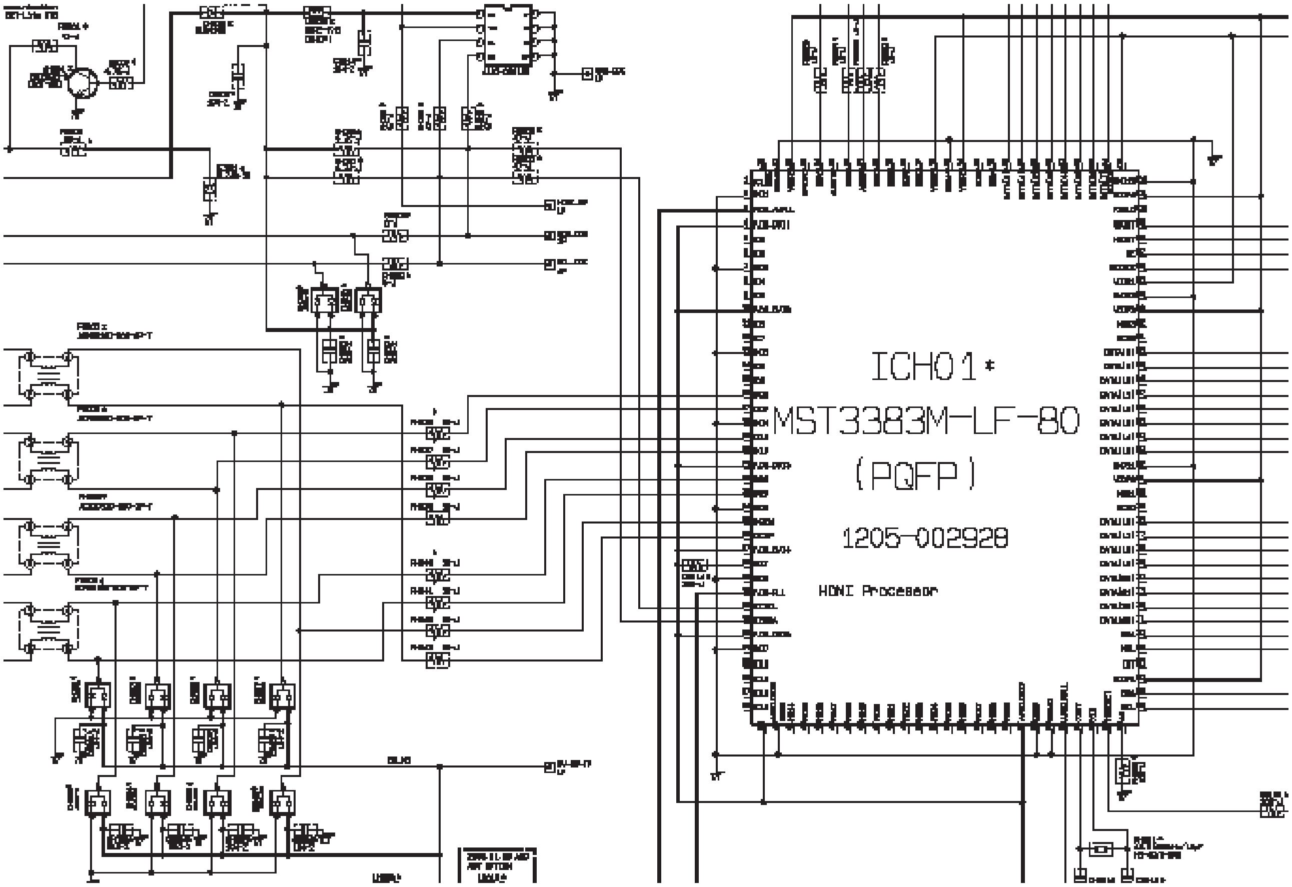

IK_LIMIT
IC03
CXA2165Q
(QFP)
1204-001989

6. MST3383M Diagnosis

HDMI Decoder

- Power supply : 5V, 3.3V, 2.5V
- Check for input defects : SCL, SDA, Reset
- Check for output defects : HDMI 24bit Data, I2S, H/V

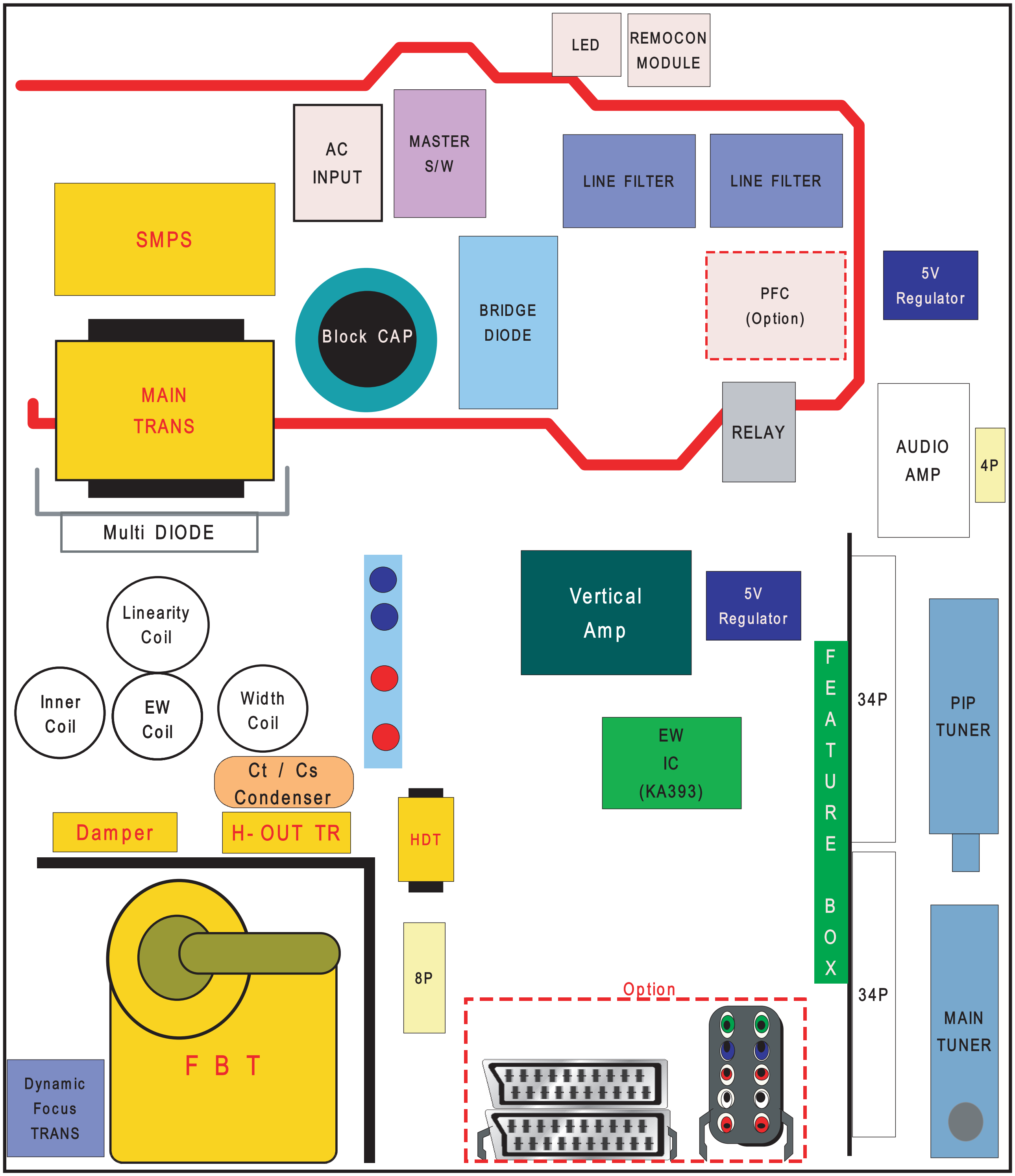

MST3383M-LF-80
C3MSB350191
0602F

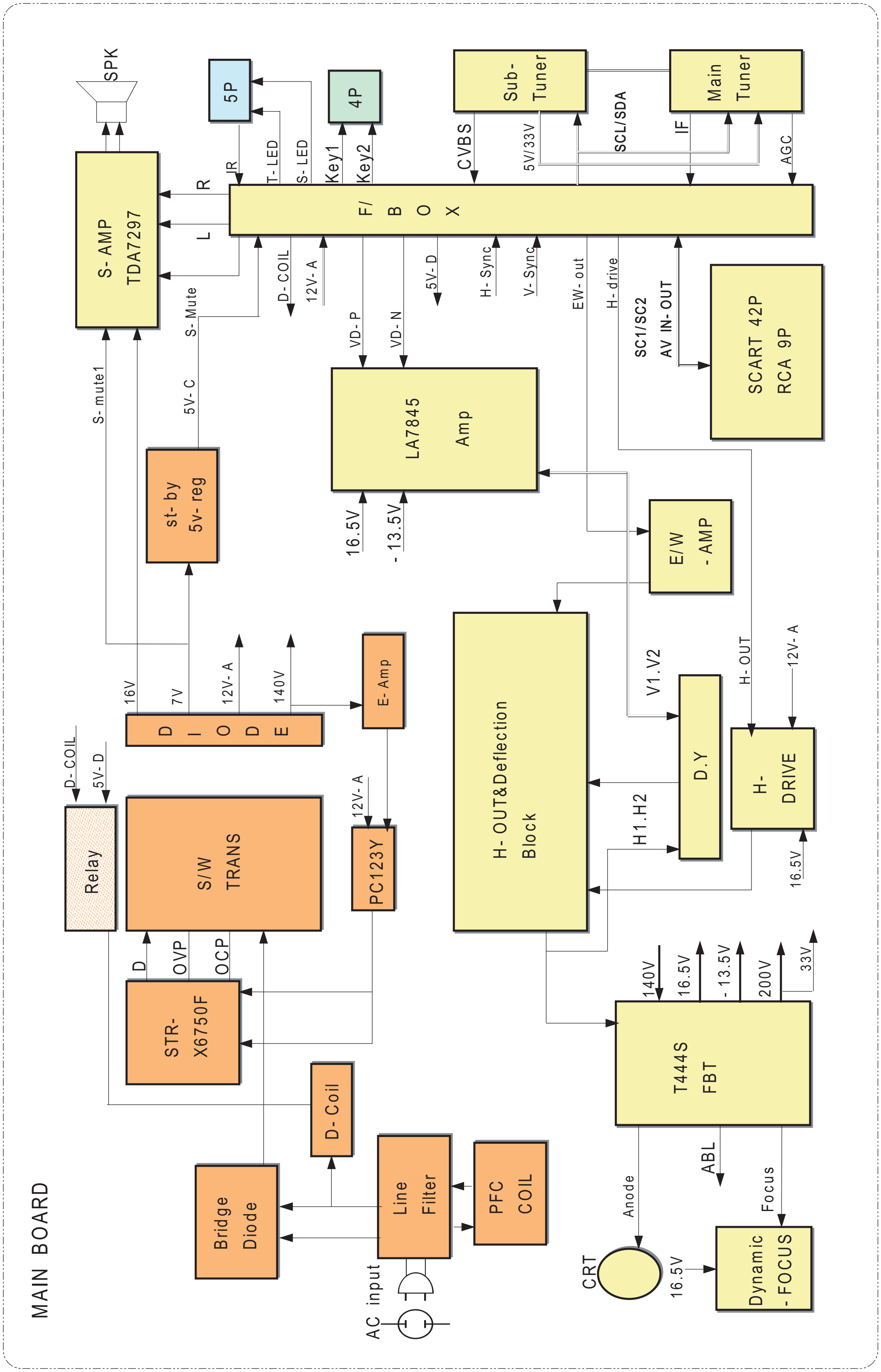

ICH01*
MST3383M-LF-80
(PQFP)
1205-002928
HDMI Processor

MEMO

7. Block Diagram

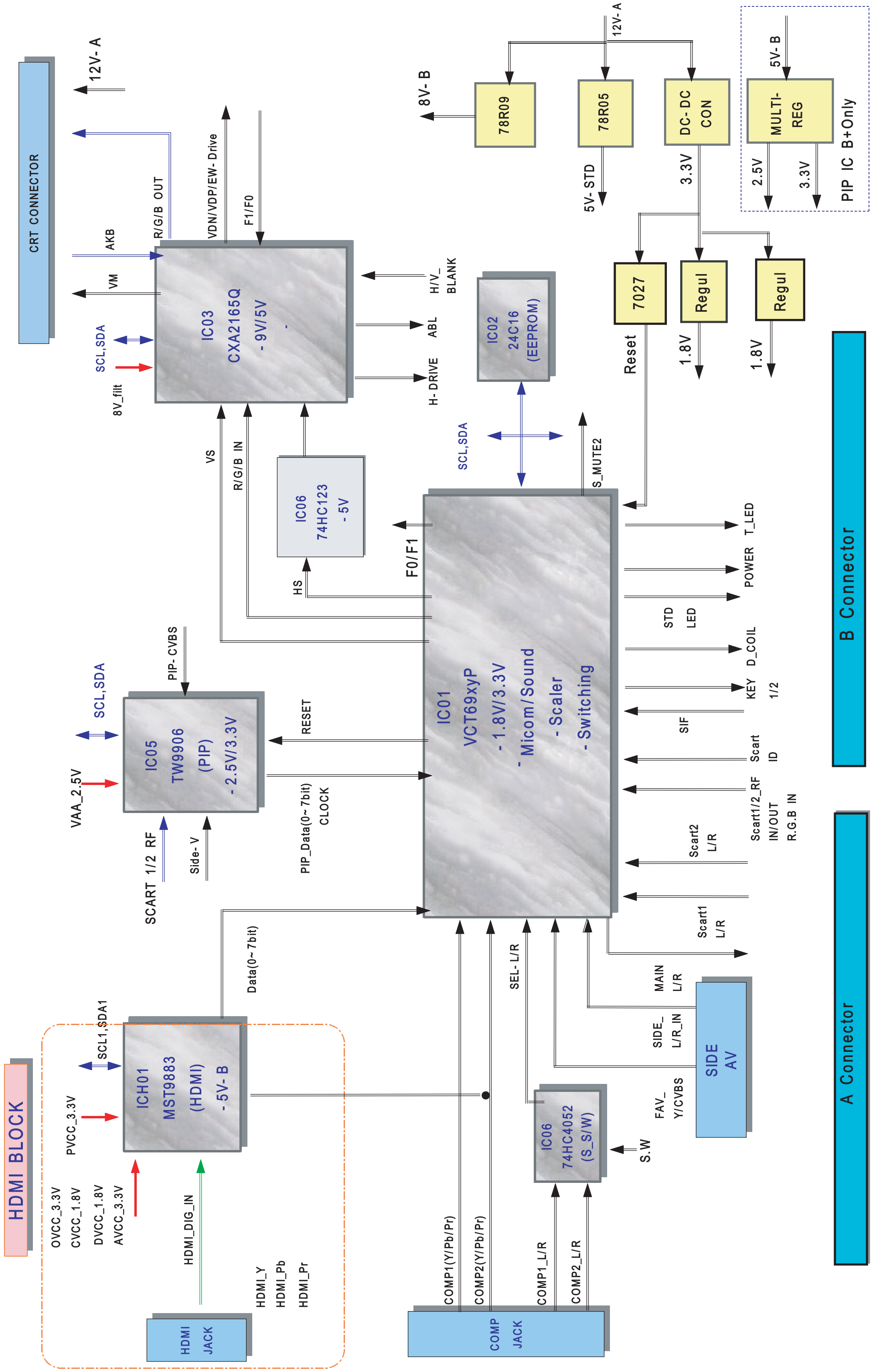
7-1 Overall Block Diagram


LED
REMOCON MODULE
AC INPUT
MASTER S/W
LINE FILTER
LINE FILTER
SMPS
Block CAP
BRIDGE DIODE
PFC (Option)
5V Regulator
MAIN TRANS
RELAY
AUDIO AMP
4P
Multi DIODE
Vertical Amp
5V Regulator
Linearity Coil
Inner Coil
EW Coil
Width Coil
Ct / Cs Condenser
EW IC (KA393)
FEATURE BOX
34P
PIP TUNER
Damper
H-OUT TR
HDT
8P
Option
34P
MAIN TUNER
F B T
Dynamic Focus TRANS

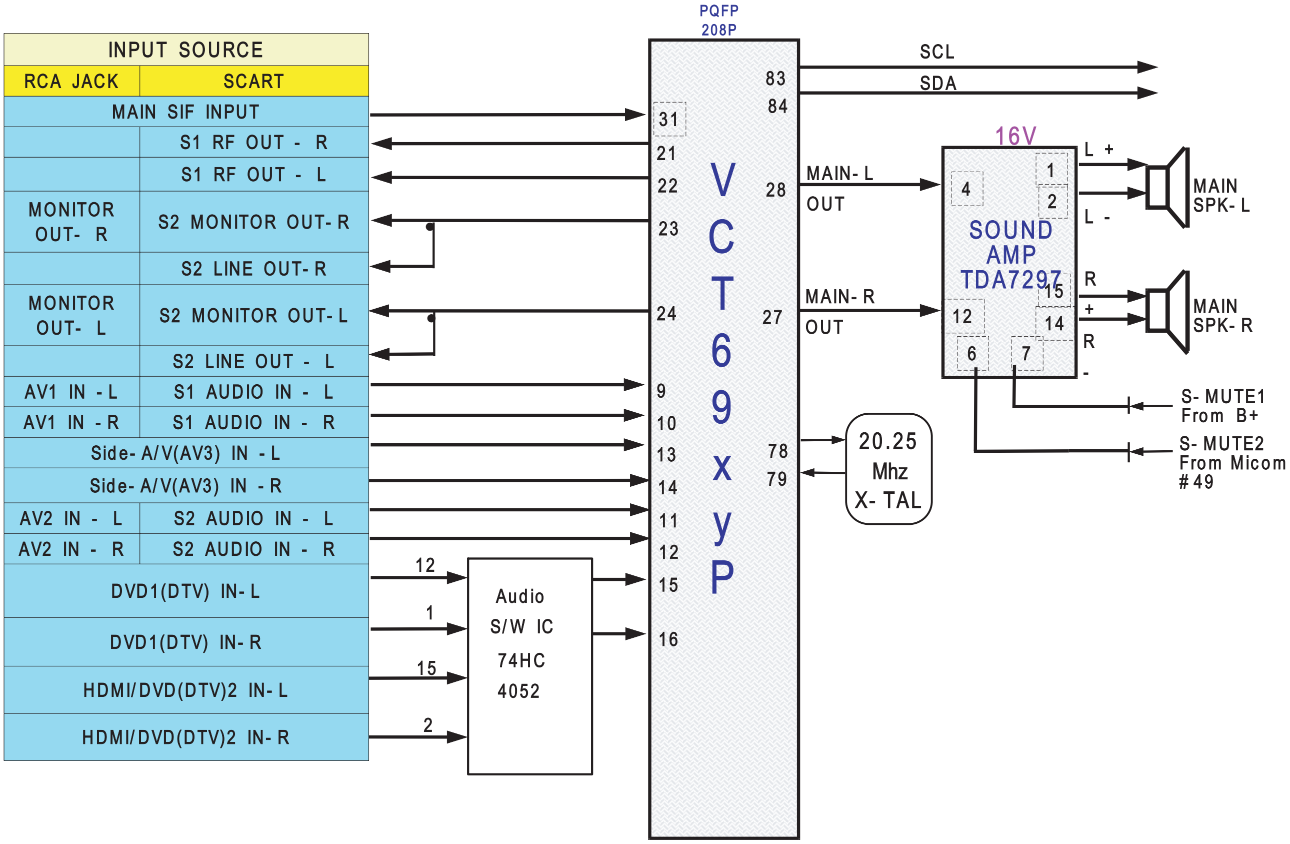

MAIN BOARD
SPK
S- AMP
TDA7297
5P
4P
Sub-
Tuner
Main
Tuner
R
L
IR
T- LED
S- LED
Key1
Key2
CVBS
5V/33V
SCL/SDA
IF
AGC
F/
B
O
X
S- Mute
D- COIL
12V- A
VD- P
VD- N
5V- D
H- Sync
V- Sync
EW- out
H- drive
SC1/SC2
AV IN- OUT
SCART 42P
RCA 9P
S- mute1
5V- C
st- by
5v- reg
LA7845
Amp
16.5V
- 13.5V
E/W
- AMP
16V
7V
12V- A
140V
D
I
O
D
E
E- Amp
H- OUT&Deflection
Block
V1.V2
D.Y
H1.H2
H- OUT
12V- A
H-
DRIVE
16.5V
D- COIL
5V- D
Relay
S/W
TRANS
12V- A
PC123Y
D
OVP
OCP
STR-
X6750F
140V
16.5V
- 13.5V
200V
33V
T444S
FBT
D- Coil
Bridge
Diode
Line
Filter
PFC
COIL
AC input
Anode
ABL
Focus
CRT
16.5V
Dynamic
- FOCUS

7-2 Partial Block Diagram

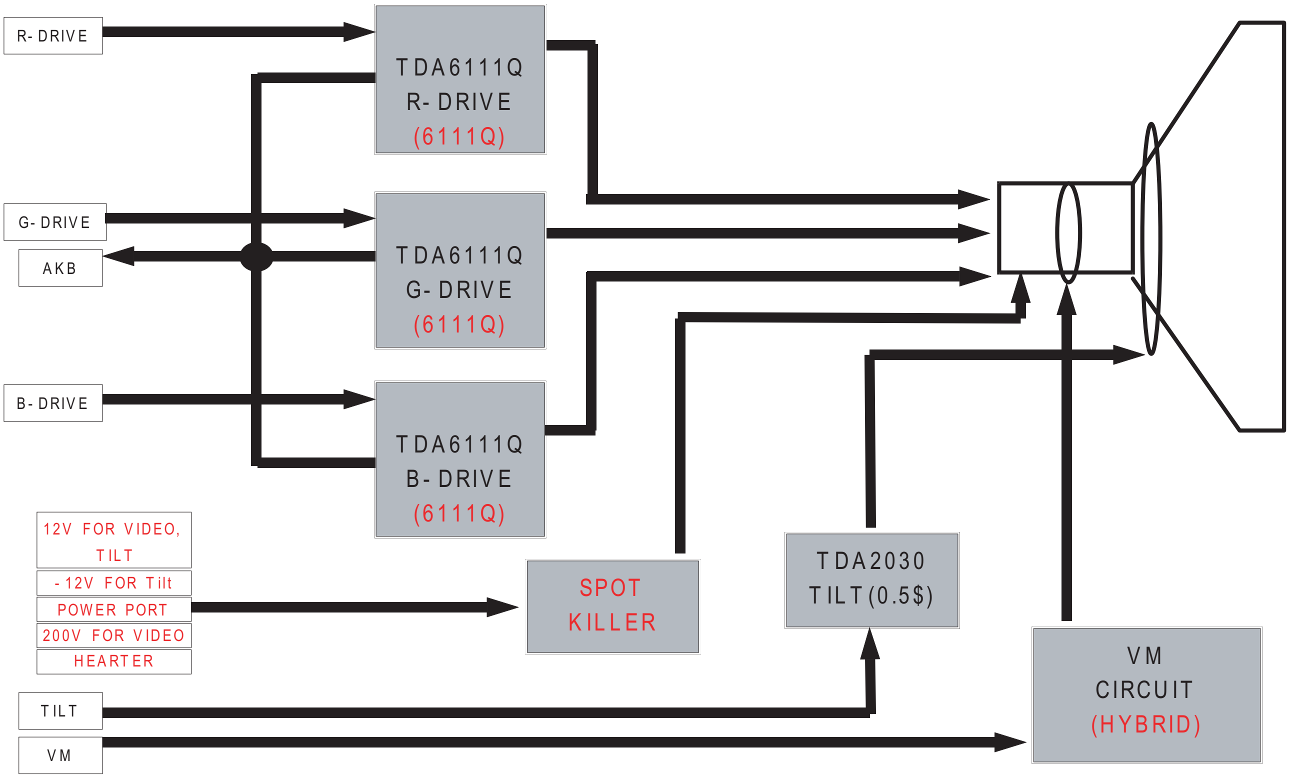
7-2-1 F-Box Block Diagram


CRT CONNECTOR
12V- A
AKB
R/G/B OUT
VDN/VDP/EW- Drive
F1/F0
VM
SCL,SDA
8V_filt
IC03
CXA2165Q
- 9V/5V
H/V_
BLANK
ABL
H- DRIVE
VS
R/G/B IN
IC06
74HC123
- 5V
HS
F0/F1
8V- B
78R09
78R05
12V- A
DC- DC
CON
5V- STD
3.3V
MULTI-
REG
5V- B
2.5V
3.3V
PIP IC B+Only
IC02
24C16
(EEPROM)
SCL,SDA
S_MUTE2
7027
Reset
Regul
1.8V
Regul
1.8V
B Connector
IC01
VCT69xyP
- 1.8V/3.3V
- Micom/Sound
- Scaler
- Switching
T_LED
POWER
STD
LED
D_COIL
KEY
1/2
SIF
Scart
ID
Scart1/2_RF
IN/OUT
R.G.B IN
Scart2
L/R
Scart1
L/R
SCL,SDA
PIP- CVBS
IC05
TW9906
(PIP)
- 2.5V/3.3V
VAA_2.5V
RESET
SCART 1/2 RF
Side- V
PIP_Data(0~7bit)
CLOCK
Data(0~7bit)
HDMI BLOCK
SCL1,SDA1
ICH01
MST9883
(HDMI)
- 5V- B
PVCC_3.3V
OVCC_3.3V
CVCC_1.8V
DVCC_1.8V
AVCC_3.3V
HDMI_DIG_IN
HDMI_Y
HDMI_Pb
HDMI_Pr
HDMI
JACK
SEL- L/R
MAIN
L/R
SIDE_
L/R_IN
FAV_
Y/CVBS
SIDE
AV
IC06
74HC4052
(S_S/W)
S.W
COMP1(Y/Pb/Pr)
COMP2(Y/Pb/Pr)
COMP1_L/R
COMP2_L/R
COMP
JACK
A Connector

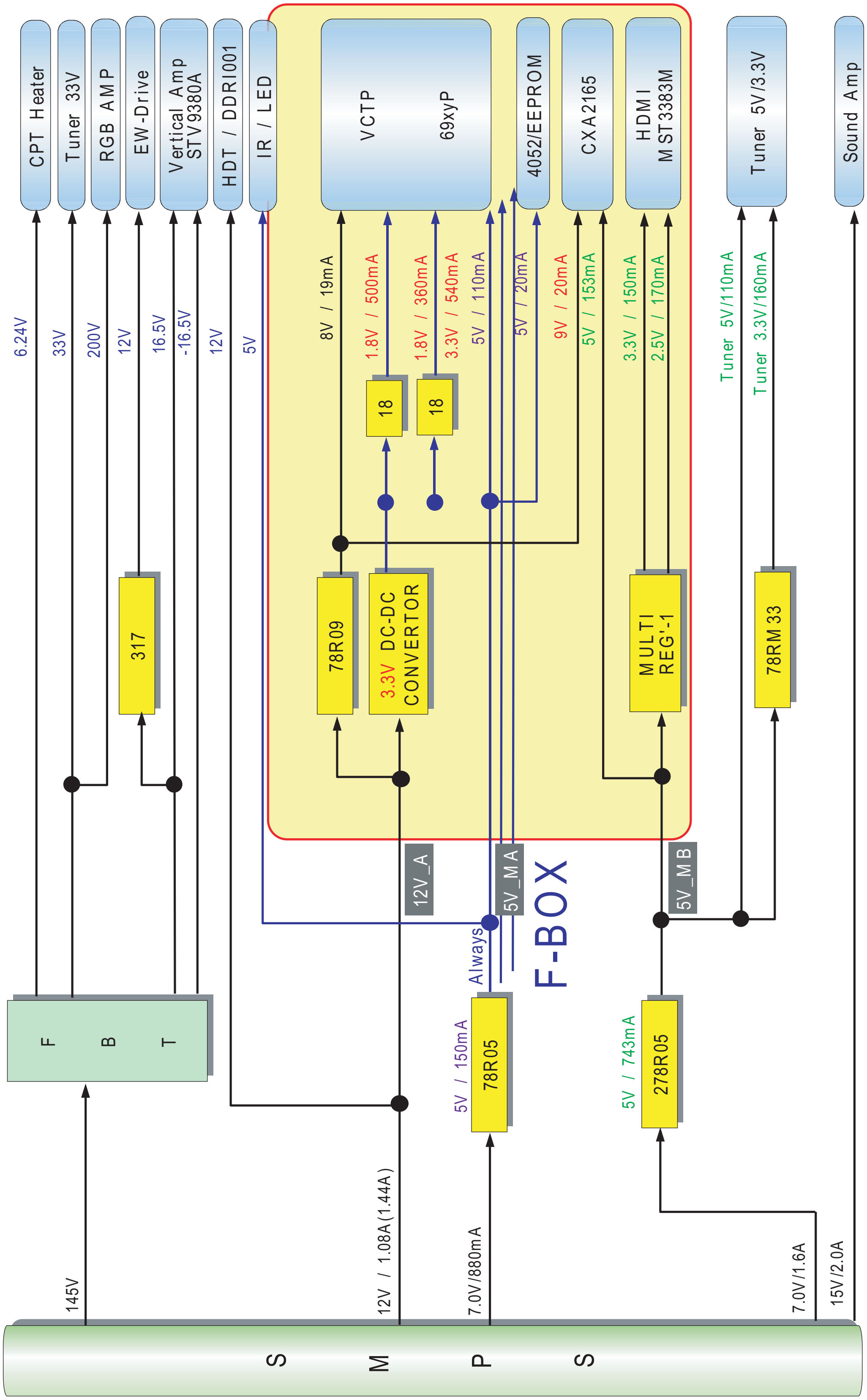
7-2-2 Sound Block Diagram


INPUT SOURCE
RCA JACK
SCART
MAIN SIF INPUT
S1 RF OUT - R
S1 RF OUT - L
MONITOR OUT- R
S2 MONITOR OUT- R
S2 LINE OUT- R
MONITOR OUT- L
S2 MONITOR OUT- L
S2 LINE OUT - L
AV1 IN - L
S1 AUDIO IN - L
AV1 IN - R
S1 AUDIO IN - R
Side- A/V(AV3) IN - L
Side- A/V(AV3) IN - R
AV2 IN - L
S2 AUDIO IN - L
AV2 IN - R
S2 AUDIO IN - R
DVD1(DTV) IN- L
DVD1(DTV) IN- R
HDMI/DVD(DTV)2 IN- L
HDMI/DVD(DTV)2 IN- R
12
1
15
2
Audio S/W IC 74HC 4052
PQFP 208P
VCT69xyP
31
21
22
23
24
9
10
13
14
11
12
15
16
83
84
28
27
78
79
SCL
SDA
MAIN- L OUT
MAIN- R OUT
20.25 Mhz X- TAL
16V
SOUND AMP TDA7297
4
1
2
12
15
14
6
7
L +
L -
R +
R -
MAIN SPK- L
MAIN SPK- R
S- MUTE1 From B+
S- MUTE2 From Micom # 49

7-2-3 CRT Diagram


R- DRIVE
G- DRIVE
AKB
B- DRIVE
TDA6111Q R- DRIVE (6111Q)
TDA6111Q G- DRIVE (6111Q)
TDA6111Q B- DRIVE (6111Q)
12V FOR VIDEO, TILT
- 12V FOR Tilt
POWER PORT
200V FOR VIDEO
HEARTER
SPOT KILLER
TDA2030 TILT(0.5$)
TILT
VM
VM CIRCUIT (HYBRID)

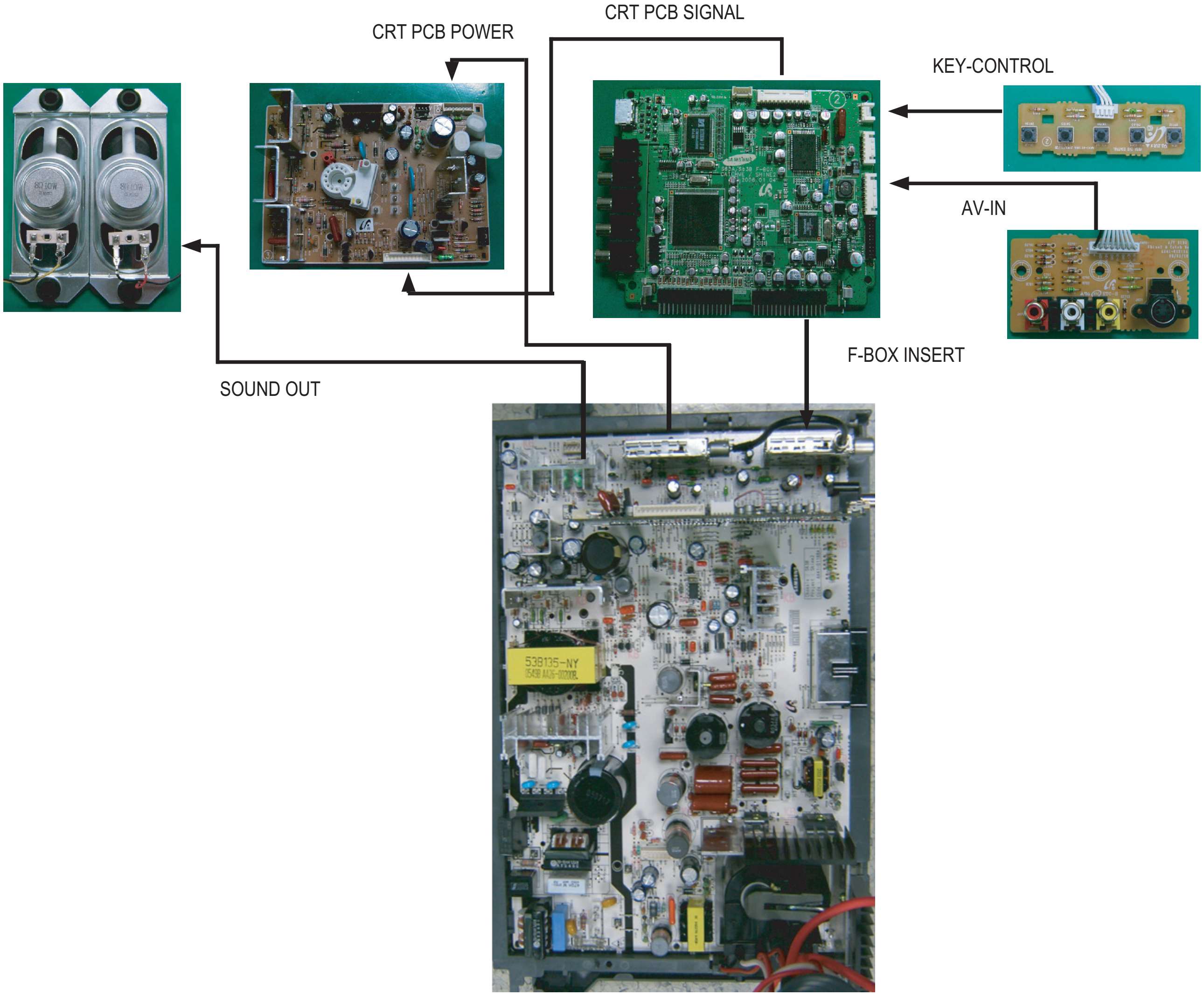
7-3 Power Current Block Diagram


CPT Heater
Tuner 33V
RGB AMP
EW-Drive
Vertical Amp
STV9380A
HDT / DDR1001
IR / LED
VCTP
69xyP
4052/EEPROM
CXA2165
HDMI
MST3383M
Tuner 5V/3.3V
Sound Amp
6.24V
33V
200V
12V
16.5V
-16.5V
12V
5V
8V / 19mA
1.8V / 500mA
1.8V / 360mA
3.3V / 540mA
5V / 110mA
5V / 20mA
9V / 20mA
5V / 153mA
3.3V / 150mA
2.5V / 170mA
Tuner 5V/110mA
Tuner 3.3V/160mA
18
18
317
78R09
3.3V DC-DC
CONVERTOR
MULTI
REG'-1
78RM33
12V_A
5V_MA
5V_MB
F-BOX
Always
FBT
5V / 150mA
78R05
5V / 743mA
278R05
145V
12V / 1.08A(1.44A)
7.0V/880mA
7.0V/1.6A
15V/2.0A
SMPS

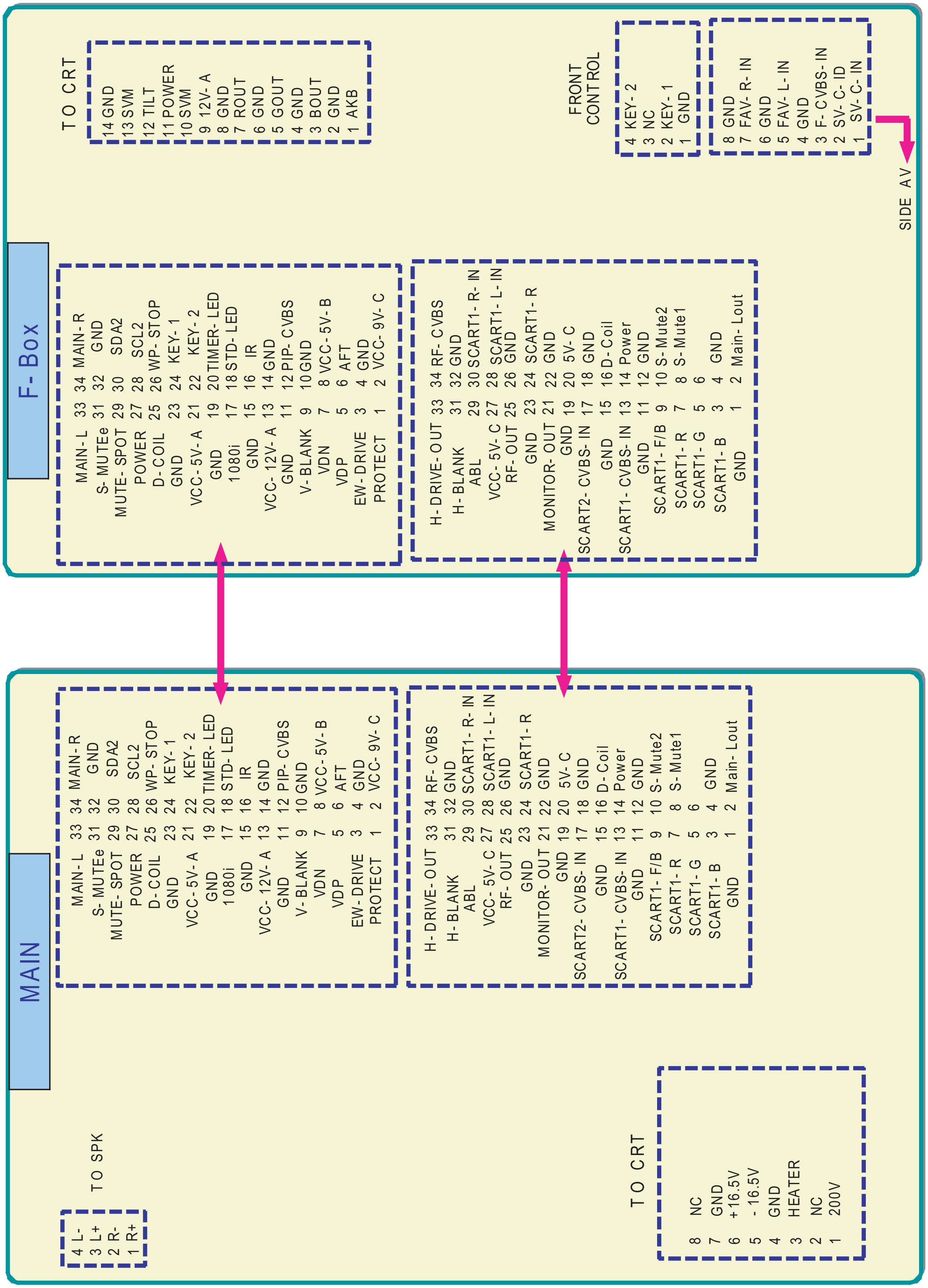
MEMO

8. Wiring Diagram

8-1 Overall Wiring


CRT PCB SIGNAL
CRT PCB POWER
KEY-CONTROL
AV-IN
F-BOX INSERT
SOUND OUT

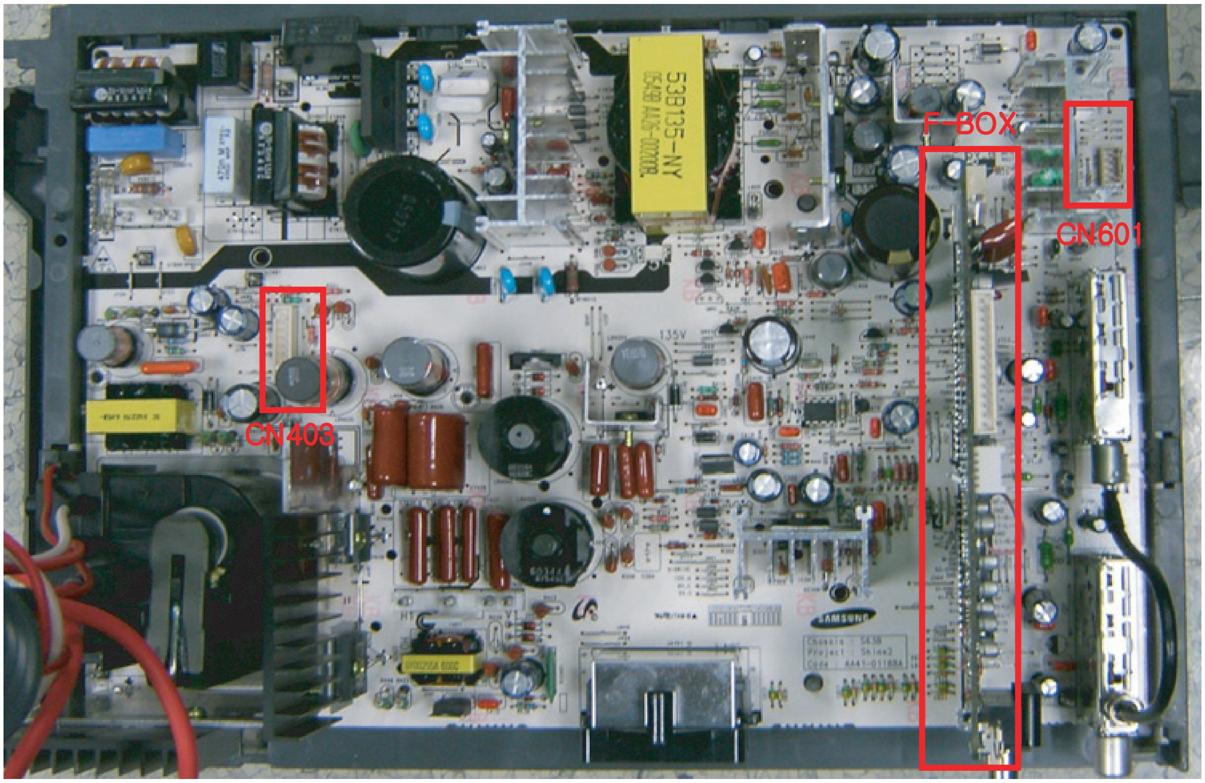
8-2 Pin Connection


F- Box
TO CRT
14 GND
13 SVM
12 TILT
11 POWER
10 SVM
9 12V- A
8 GND
7 ROUT
6 GND
5 GOUT
4 GND
3 BOUT
2 GND
1 AKB
FRONT CONTROL
4 KEY- 2
3 NC
2 KEY- 1
1 GND
8 GND
7 FAV- R- IN
6 GND
5 FAV- L- IN
4 GND
3 F- CVBS- IN
2 SV- C- ID
1 SV- C- IN
SIDE AV
MAIN- L 33 34 MAIN- R
S- MUTEe 31 32 GND
MUTE- SPOT 29 30 SDA2
POWER 27 28 SCL2
D- COIL 25 26 WP- STOP
GND 23 24 KEY- 1
VCC- 5V- A 21 22 KEY- 2
GND 19 20 TIMER- LED
1080i 17 18 STD- LED
GND 15 16 IR
VCC- 12V- A 13 14 GND
GND 11 12 PIP- CVBS
V- BLANK 9 10 GND
VDN 7 8 VCC- 5V- B
VDP 5 6 AFT
EW- DRIVE 3 4 GND
PROTECT 1 2 VCC- 9V- C
H- DRIVE- OUT 33 34 RF- CVBS
H- BLANK 31 32 GND
ABL 29 30 SCART1- R- IN
VCC- 5V- C 27 28 SCART1- L- IN
RF- OUT 25 26 GND
GND 23 24 SCART1- R
MONITOR- OUT 21 22 GND
GND 19 20 5V- C
SCART2- CVBS- IN 17 18 GND
GND 15 16 D- Coil
SCART1- CVBS- IN 13 14 Power
GND 11 12 GND
SCART1- F/B 9 10 S- Mute2
SCART1- R 7 8 S- Mute1
SCART1- G 5 6
SCART1- B 3 4 GND
GND 1 2 Main- Lout
MAIN
MAIN- L 33 34 MAIN- R
S- MUTEe 31 32 GND
MUTE- SPOT 29 30 SDA2
POWER 27 28 SCL2
D- COIL 25 26 WP- STOP
GND 23 24 KEY- 1
VCC- 5V- A 21 22 KEY- 2
GND 19 20 TIMER- LED
1080i 17 18 STD- LED
GND 15 16 IR
VCC- 12V- A 13 14 GND
GND 11 12 PIP- CVBS
V- BLANK 9 10 GND
VDN 7 8 VCC- 5V- B
VDP 5 6 AFT
EW- DRIVE 3 4 GND
PROTECT 1 2 VCC- 9V- C
H- DRIVE- OUT 33 34 RF- CVBS
H- BLANK 31 32 GND
ABL 29 30 SCART1- R- IN
VCC- 5V- C 27 28 SCART1- L- IN
RF- OUT 25 26 GND
GND 23 24 SCART1- R
MONITOR- OUT 21 22 GND
GND 19 20 5V- C
SCART2- CVBS- IN 17 18 GND
GND 15 16 D- Coil
SCART1- CVBS- IN 13 14 Power
GND 11 12 GND
SCART1- F/B 9 10 S- Mute2
SCART1- R 7 8 S- Mute1
SCART1- G 5 6
SCART1- B 3 4 GND
GND 1 2 Main- Lout
TO SPK
4 L-
3 L+
2 R-
1 R+
TO CRT
8 NC
7 GND
6 +16.5V
5 - 16.5V
4 GND
3 HEATER
2 NC
1 200V

9. PCB Diagram

9-1 Main Board

9-1-1 Assy Main Board



■ The System Board that Controls Various Signals for Video Signal Processing and Product Operations

9-1-2 Names & Roles of Key Parts

* CN601 : This is a 4 pin port connected to the Speaker, and sends the signal from the AMP to the speakers.
* CN403 : This is a 8 pin port connected to the CRT Board and supplies 200V, +16V, -16V and Heater voltage.
* GT804 : This is a ground port to prevent high voltage due to lighting.
* CN802 : This is a 3 pin port connected to the AC power cable. It is connected to the power cable socket.
* GT805, GT806 : This is a port connected to the D-Coil surrounding the CRT.

9-1-3 Main Board Connector Pin

CN401
Connected to the CRT Board

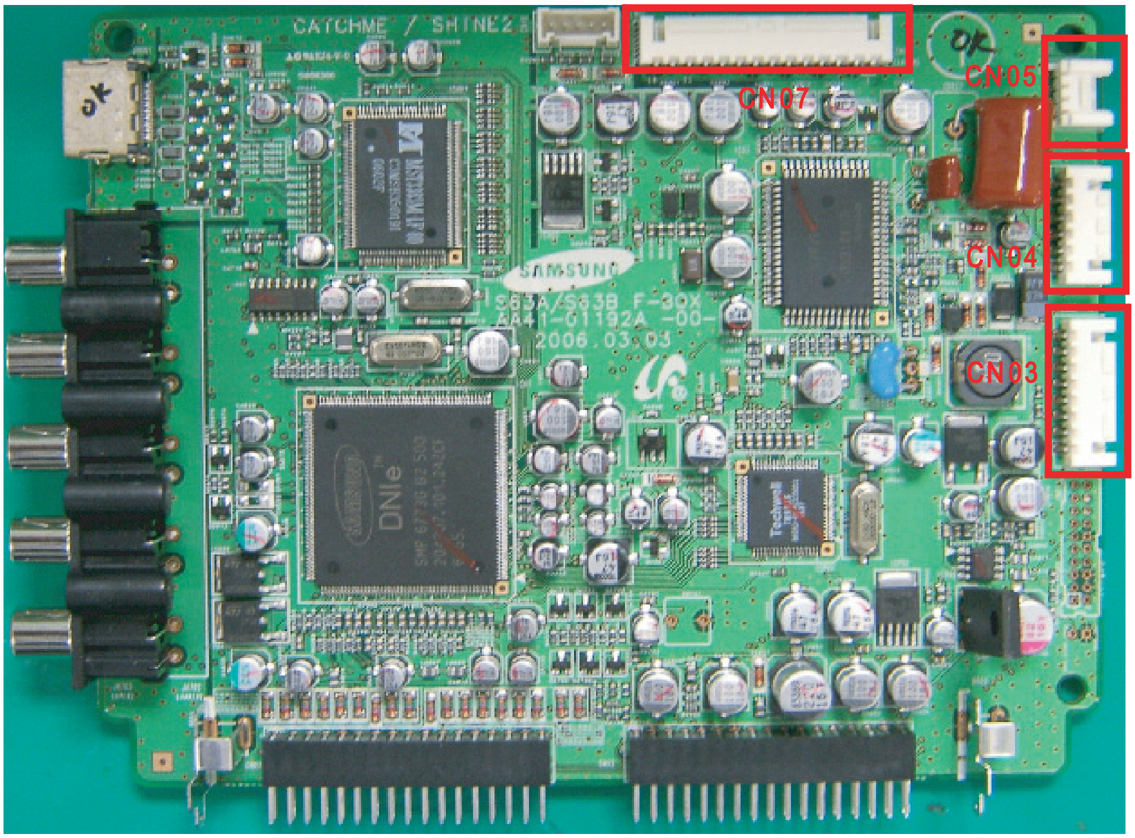
Pin No.	Pin Name
1	200V
2	NC
3	Heater
4	GND
5	-16.5V
6	+16.5V
7	GND
8	NC

CN601
Connected to the Speaker Port

Pin No.	Pin Name
1	R+
2	R-
3	L+
4	L-

9-2 Feature Box Board

9-2-1 Assy Feature Box Board


CN07
CN05
CN04
CN03
CATCHME / SHINE2
SAMSUNG
S63A/S63B F-30X
AA41-01192A -00-
2006.03.03
DNIe

■ This controls the path of the electron beams from the CRT electron guns using the deflection coil.

9-2-2 Names & Roles of Key Parts

* CN07 : This is a 14 pin port connected to the CRT Assy's, and outputs final R/G/B signals to the CRT Ass'y.
In addition, it outputs the Tilt, VM, and Power signals for the CRT Drive.

* CN05 : This is a 4 pin port connected to the Control Ass'y, and receives TV/Video, Menu, Ch Up/Down and Vol -/+ signals.

* CN04 : This is a 6 pin port connected to the Master Ass'y, and receives Master Power On/Off, and IR signals.

* CN03 : This is a 8 pin port connected to the Side AV, and receives S-Video2 and AV4 external inputs.

9-2-3 Feature Box Board Connector Pin

CN07
Connected to the CRT Ass'y

Pin No.	Pin Name
1	AKB
2	GND
3	B-OUT
4	GND
5	G-OUT
6	GND
7	R-OUT
8	GND
9	12V_A
10	SVM
11	POWER
12	TILT
13	SVM
14	GND

CN04
Connected to the Master Ass'y

Pin No.	Pin Name
1	TIMER-LED
2	STD-LED
3	GND
4	NC
5	5V-STD
6	IR

CN05
Connected to the Control Ass'y

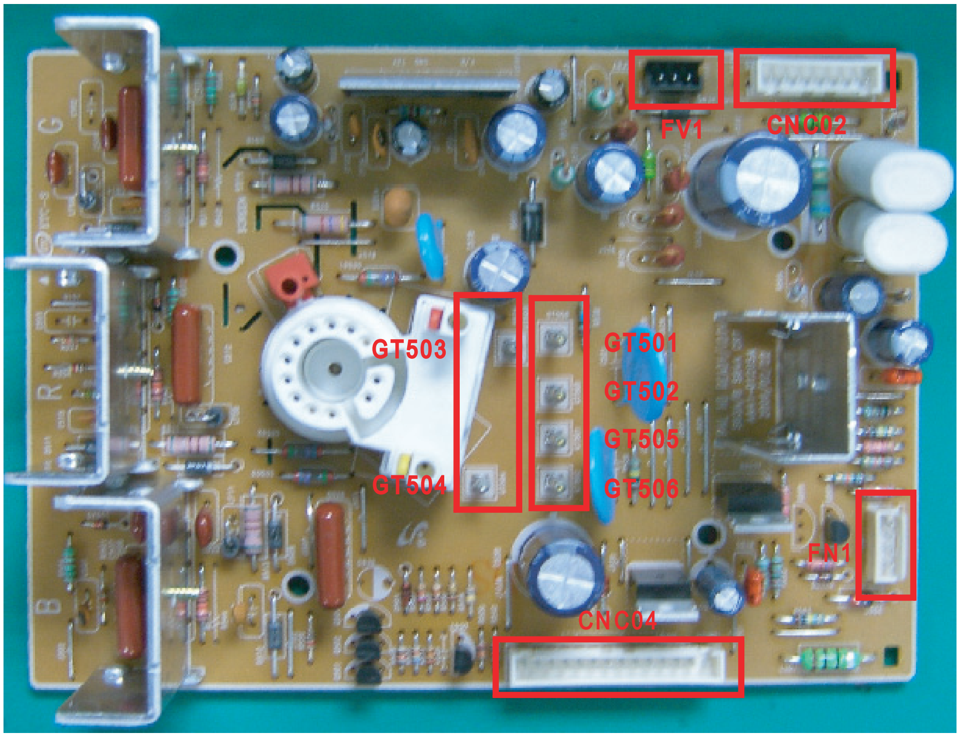
Pin No.	Pin Name
1	GND
2	KEY-1
3	NC
4	KEY-2

CN03
Connected to the Side AV Port

Pin No.	Pin Name
1	SV-C-IN
2	SV-C-ID
3	F-CVBS IN
4	GND
5	FAV-L-IN
6	GND
7	FAV-R-IN
8	GND

9-3 CRT Board

9-3-1 Assy CRT Board



■ CRT Drive
This supplies the final R/G/B signal from the F-Box and the CRT deflection signal to the CRT

9-3-2 Names & Roles of Key Parts

* GT501, GT502, GT505, GT506 : This is a port connected to the TBC-Wire and plays the role of CRT ground.
* GT503, GT504 : This is a port for countermeasures against compulsory discharges and is connected to the Main Board.
* CNC04 : This is a port to receive the R/G/B output signals from the Feature Box.
* CNC02 : This is a port that receives power for the CRT and AMP from the Main Board.
* FV1 : A port to connect the VM signal to the DY Ass'y.
* FN1 : A port to connect signals to the Tilt Coil and is regured for the screen slant adjustment.

9-3-3 CRT Board Connector Pin

CNC04
Connected to R/G/B signal from the Feature Box

Pin No.	Pin Name
1	AKB
2	GND
3	B-OUT
4	GND
5	G-OUT
6	GND
7	R-OUT
8	GND
9	12V_A
10	SVM
11	POWER
12	TILT
13	SVM
14	GND

CNC02
Connects the power from the Main Board

Pin No.	Pin Name
1	200V
2	NC
3	Heater
4	GND
5	-16.5V
6	+16.5V
7	GND
8	NC

FV1
Connected the VM signal to the DY Ass'y

Pin No.	Pin Name
1	VM
2	NC
3	VM

FN1
Connects the signal to the Tilt Coil

Pin No.	Pin Name
1	GND
2	GND
3	TILT
4	TILT

10. Schematic Diagram

10-1 MAIN

10-1-1 MAIN 1

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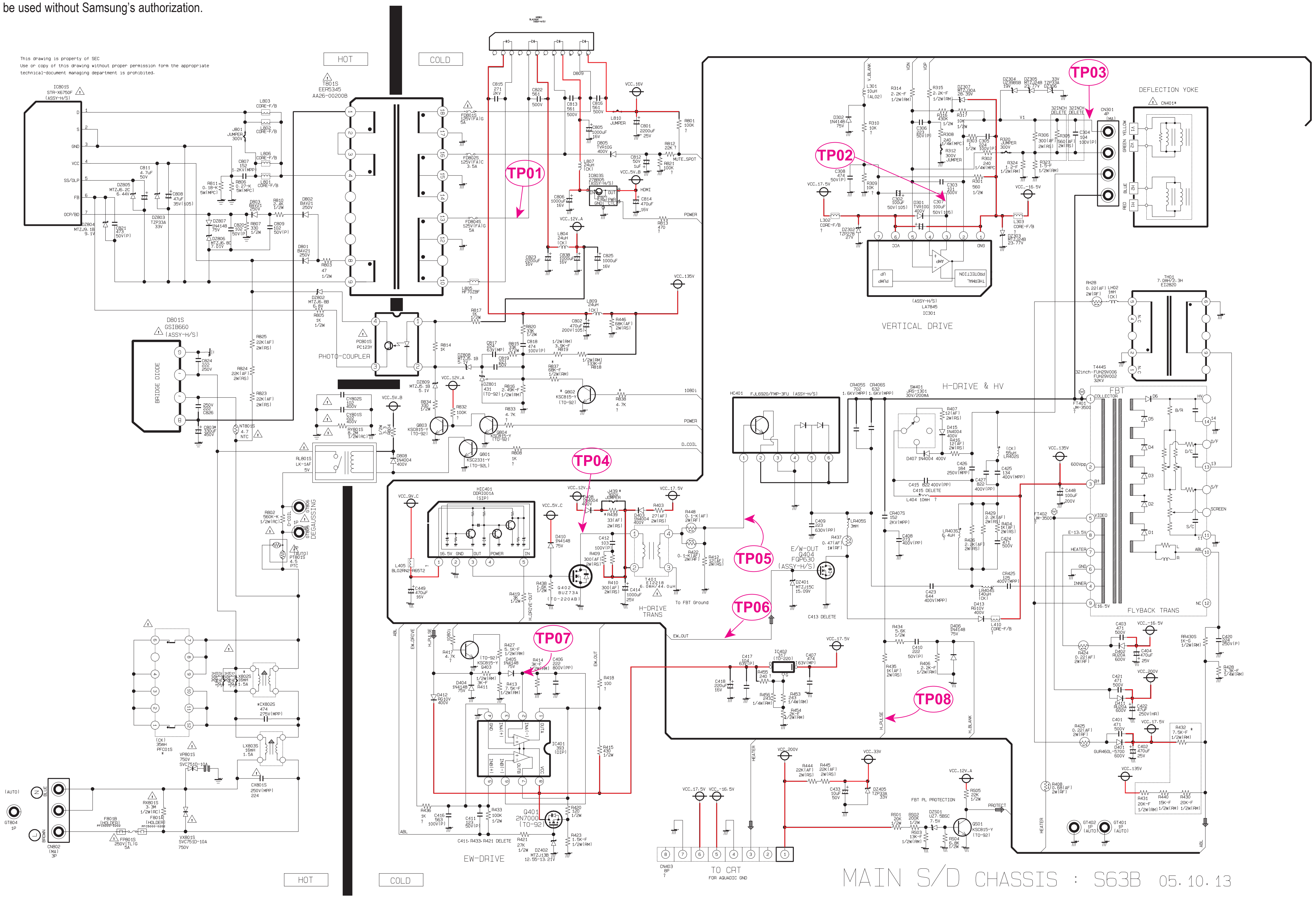
🟥	Power
🟦	Signal


This drawing is property of SEC
Use or copy of this drawing without proper permission form the appropriate technical-document managing department is prohibited.
HOT
COLD
IC801S
STR-X6756F
T801S
EER5345
AA26-00200B
BRIDGE DIODE
D801S
GSIB660
PHOTO-COUPLER
PC801S
PC123Y
DEGAUSSING
TP01
TP02
TP03
TP04
TP05
TP06
TP07
TP08
DEFLECTION YOKE
VERTICAL DRIVE
IC301
LA7845
H-DRIVE & HV
FBT
FLYBACK TRANS
E/W-OUT
Q404
FQP630
H-DRIVE TRANS
T401
EW-DRIVE
IC401
Q402
BUZ73A
Q401
2N7000
TO CRT
CN403
FOR AQUADIC GND
To FBT Ground
FBT PL PROTECTION
HIC401
MAIN S/D CHASSIS : S63B 05.10.13

10-1-2 MAIN 2

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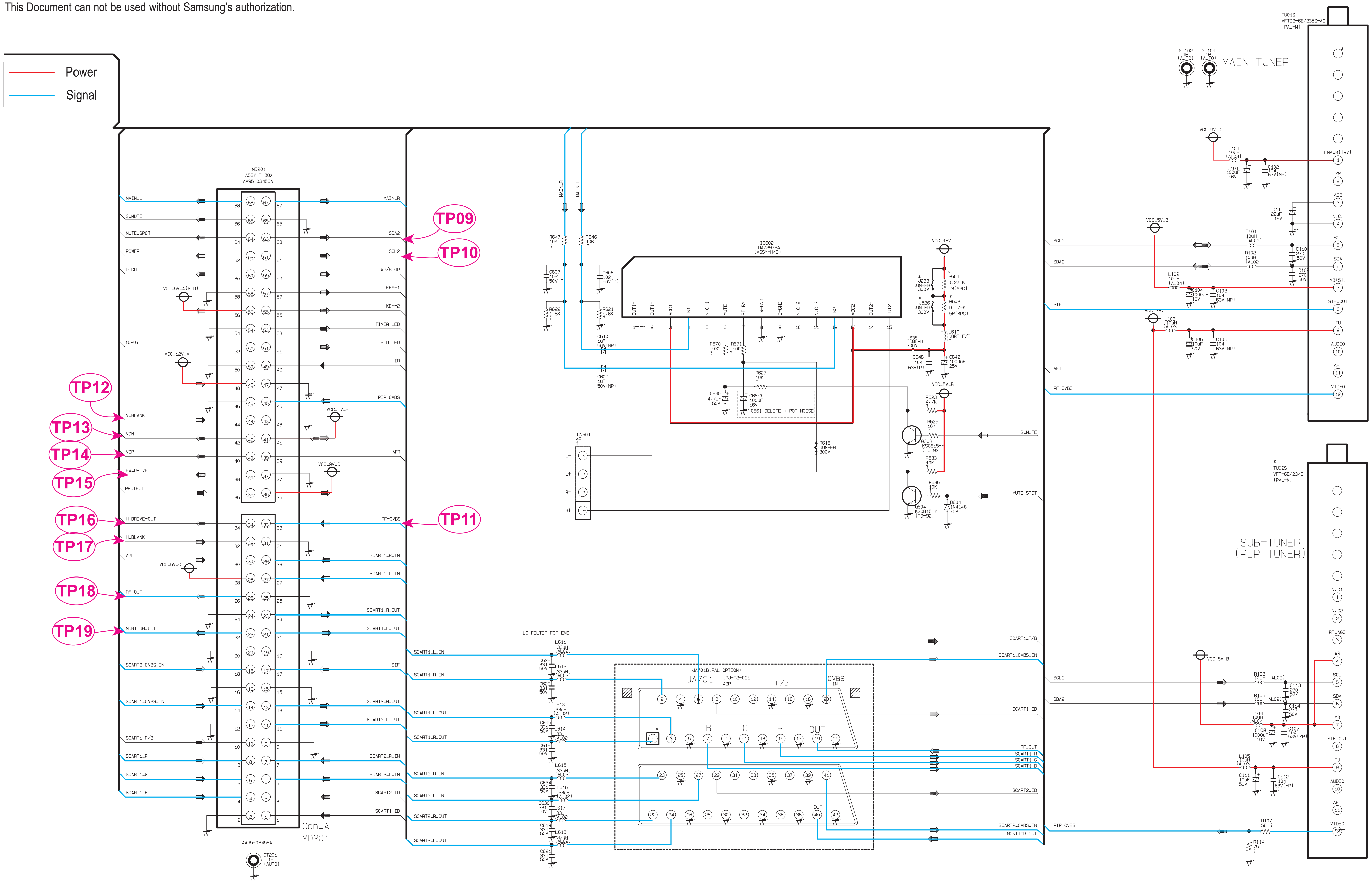
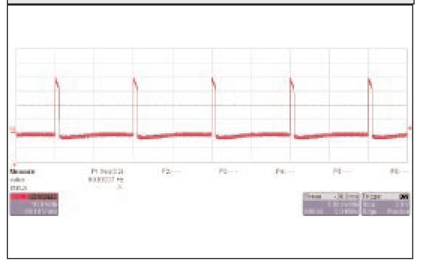

Power
Signal
MD201
ASSY-F-BOX
AA95-03456A
Con_A
MD201
GT201
MAIN_L
S_MUTE
MUTE_SPOT
POWER
D_COIL
VCC_5V_A(STD)
1080i
VCC_12V_A
V_BLANK
VDN
VDP
EW_DRIVE
PROTECT
H_DRIVE-OUT
H_BLANK
ABL
VCC_5V_C
RF_OUT
MONITOR_OUT
SCART2_CVBS_IN
SCART1_CVBS_IN
SCART1_F/B
SCART1_R
SCART1_G
SCART1_B
MAIN_R
SDA2
SCL2
WP/STOP
KEY-1
KEY-2
TIMER-LED
STD-LED
IR
PIP-CVBS
VCC_5V_B
AFT
VCC_9V_C
RF-CVBS
SCART1_R_IN
SCART1_L_IN
SCART1_R_OUT
SCART1_L_OUT
SIF
SCART2_R_OUT
SCART2_L_OUT
SCART2_R_IN
SCART2_L_IN
SCART2_ID
SCART1_ID
TP09
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
IC602
TDA7297SA
(ASSY-H/S)
OUT1+
OUT1-
VCC1
IN1
N.C.1
MUTE
ST-BY
PW-GND
S-GND
N.C.2
N.C.3
IN2
VCC2
OUT2-
OUT2+
CN601
4P
C661 DELETE : POP NOISE
LC FILTER FOR EMS
JA701B(PAL OPTION)
JA701
UPJ-R2-021
42P
F/B
CVBS
IN
B
G
R
OUT
Q603
KSC815-Y
(TO-92)
Q604
KSC815-Y
(TO-92)
D604
1N4148
MAIN-TUNER
TU01S
VFT02-6B/235S-A2
(PAL-M)
LNA_B(+9V)
SW
AGC
N.C.
SCL
SDA
MB(5+)
SIF_OUT
TU
AUDIO
AFT
VIDEO
VCC_33V
SUB-TUNER
(PIP-TUNER)
TU02S
VFT-6B/234S
(PAL-M)
N.C1
N.C2
RF_AGC
AS
MB
SCART1_F/B
SCART1_CVBS_IN
RF_OUT
SCART1_R
SCART1_G
SCART1_B
SCART2_CVBS_IN
MONITOR_OUT
PIP-CVBS

WAVEFORM

TP01



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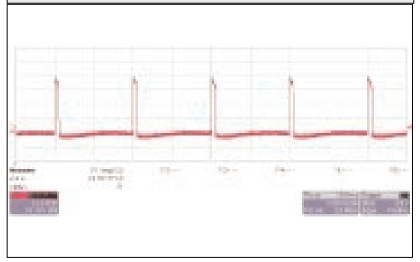

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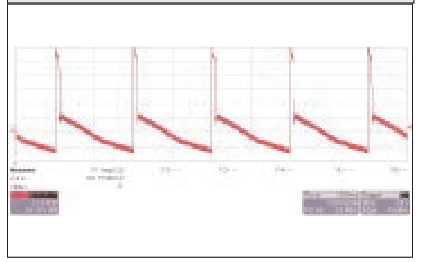

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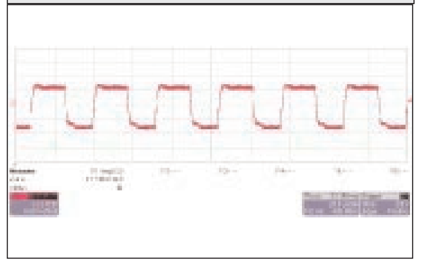

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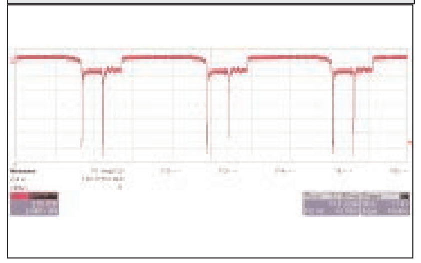

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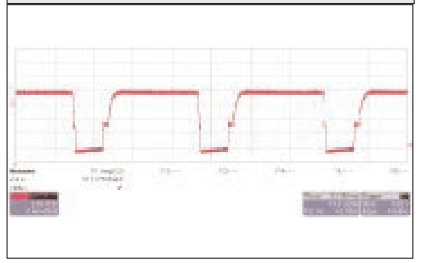

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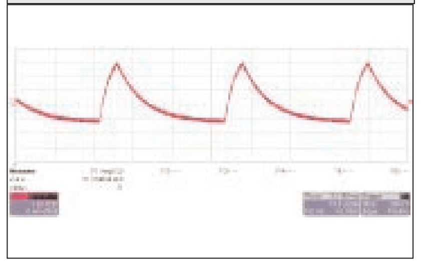

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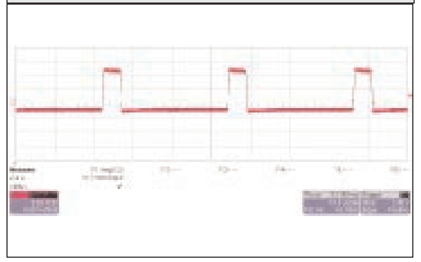
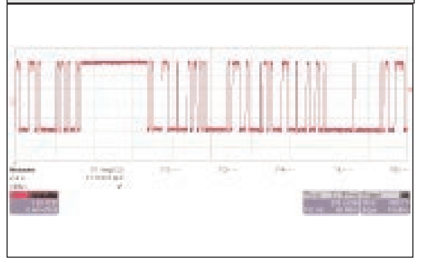


TP09



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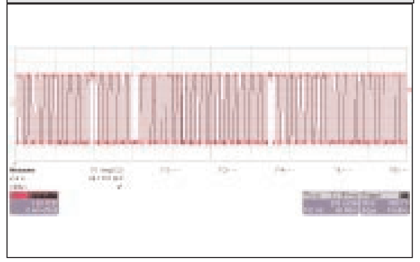
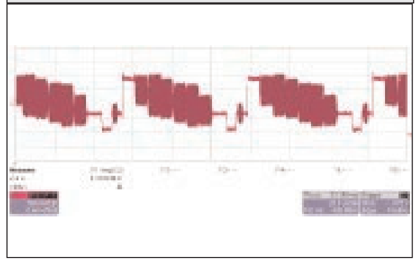
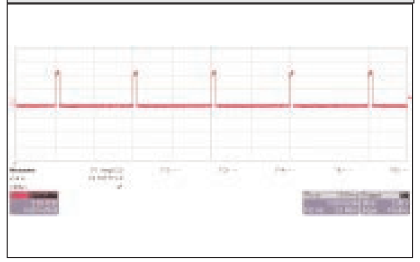


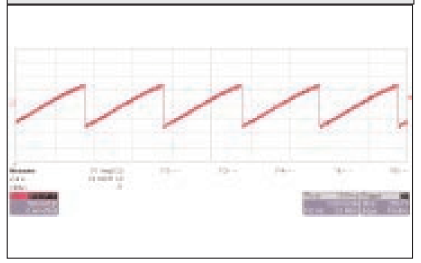
TP011



TP12



TP13



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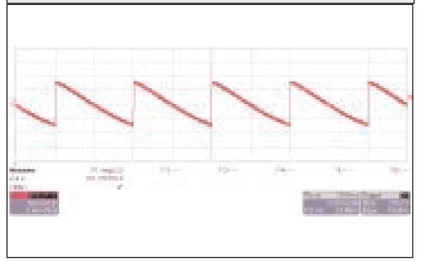

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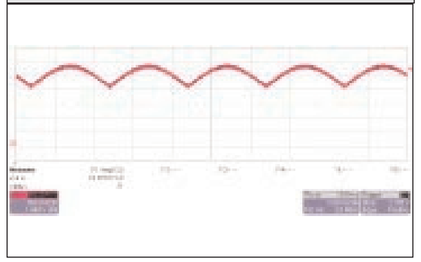

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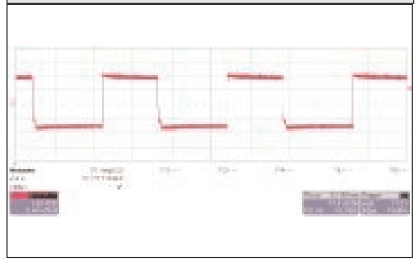

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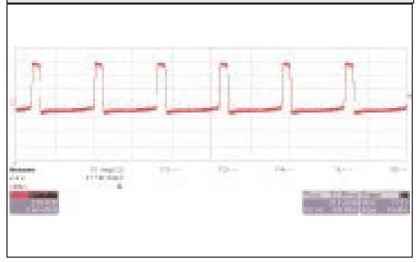

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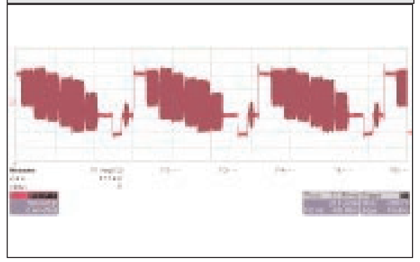

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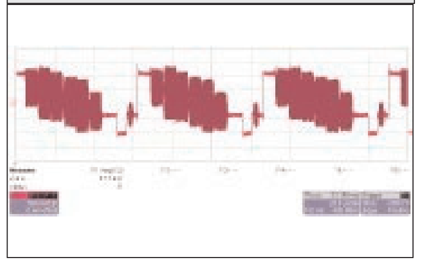

10-2 Feature Box

10-2-1 Feature Box 1

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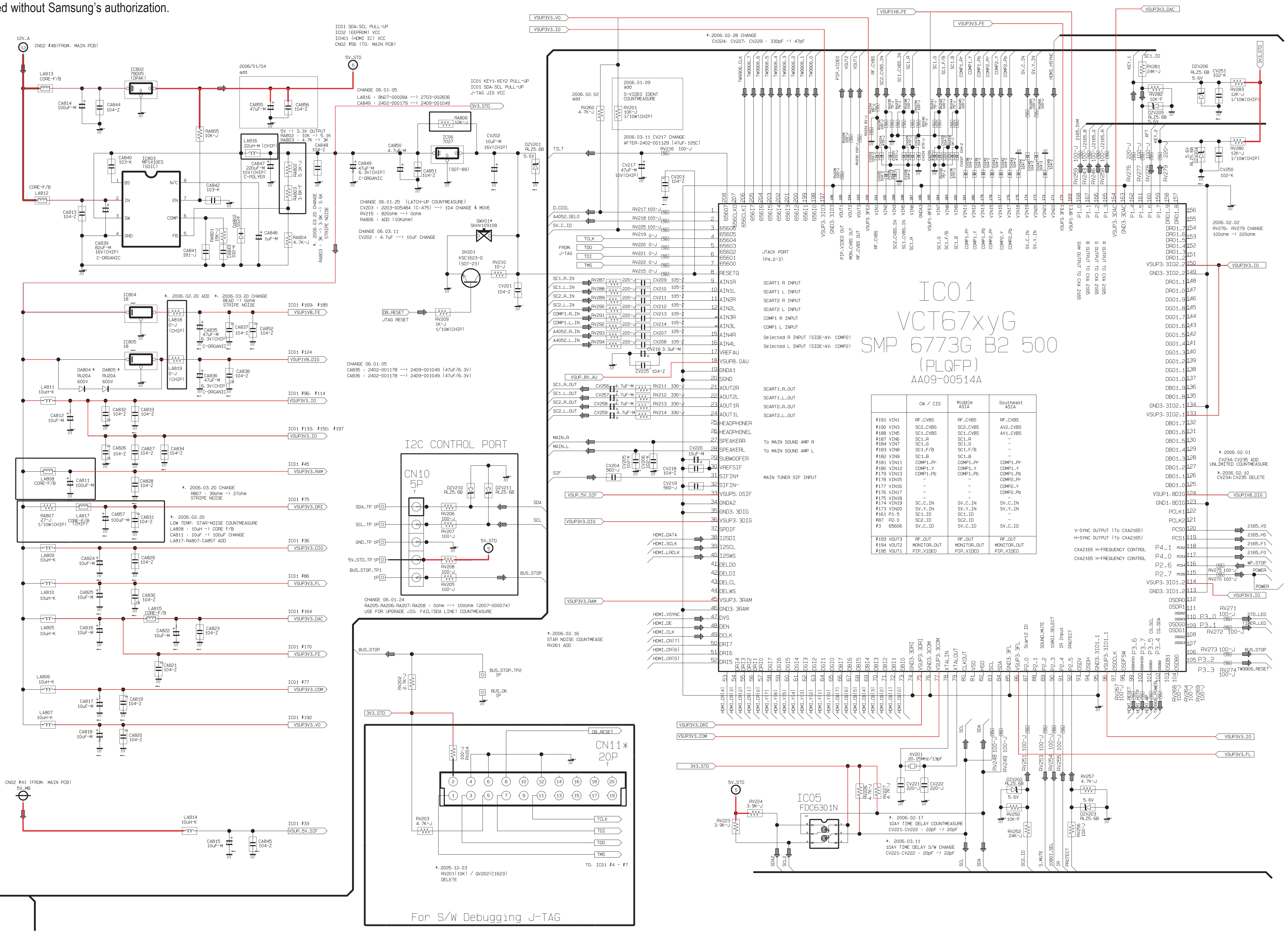
Power

Signal


12V_A
CN02 #48(FROM. MAIN PCB)
IC802 78D05 (DPAK)
IC803 MP1410ES (SOIC)
2006/01/04 add
5V_STD
IC01 SDA,SCL PULL-UP
IC02 (EEPROM) VCC
ICH01 (HDMI IC) VCC
CN02 #56 (TO. MAIN PCB)
CHANGE 06.01.05
IC06 7027
IC01 KEY1,KEY2 PULL-UP
IC01 SDA,SCL PULL-UP
J-TAG JIG VCC
3V3_STD
QV201 KSC1623-G (SOT-23)
SWV01* SKHV10910B
DB_RESET
JTAG RESET
IC804 18
IC805 18
IC01 #169, #185
VSUP1V8_FE
IC01 #124
VSUP1V8_DIG
IC01 #96, #114
VSUP3V3_IO
IC01 #133, #150, #197
IC01 #45
VSUP3V3_RAM
IC01 #75
VSUP3V3_DRI
IC01 #36
VSUP3V3_DIG
IC01 #86
VSUP3V3_FL
IC01 #164
VSUP3V3_DAC
IC01 #170
VSUP3V3_FE
IC01 #77
VSUP3V3_COM
IC01 #192
VSUP3V3_VD
CN02 #41 (FROM. MAIN PCB)
5V_MB
IC01 #33
VSUP_5V_SIF
I2C CONTROL PORT
CN10 5P
SDA_TP 1P
SCL_TP 1P
GND_TP 1P
5V_STD_TP 1P
BUS_STOP_TP1 1P
SDA
SCL
BUS_STOP
BUS_STOP_TP2 1P
BUS_OK 1P
CN11* 20P
TCLK
TDI
TDO
TMS
TO. IC01 #4 - #7
For S/W Debugging J-TAG
IC01
VCT67xyG
SMP 6773G B2 500
(PLQFP)
AA09-00514A
JTACK PORT (P4.0-3)
SCART1 R INPUT
SCART1 L INPUT
SCART2 R INPUT
SCART2 L INPUT
COMP1 R INPUT
COMP1 L INPUT
Selected R INPUT (SIDE-AV, COMP2)
Selected L INPUT (SIDE-AV, COMP2)
SCART1_R_OUT
SCART1_L_OUT
SCART2_R_OUT
SCART2_L_OUT
To MAIN SOUND AMP R
To MAIN SOUND AMP L
MAIN TUNER SIF INPUT
CW / CIS
Middle ASIA
Southeast ASIA
HDMI_DATA
HDMI_SCLK
HDMI_LRCLK
HDMI_VSYNC
HDMI_DE
HDMI_CLK
IC05 FDC6301N
XV201 20.25MHz/13pF
V-SYNC OUTPUT (To CXA2165)
H-SYNC OUTPUT (To CXA2165)
CXA2165 H-FREQUENCY CONTROL
VSUP3V3_IO
VSUP3V3_FL
STD_LED
TIMER_LED
BUS_STOP
TW9906_RESET
POWER
WP_STOP

10-2-2 Feature Box 2

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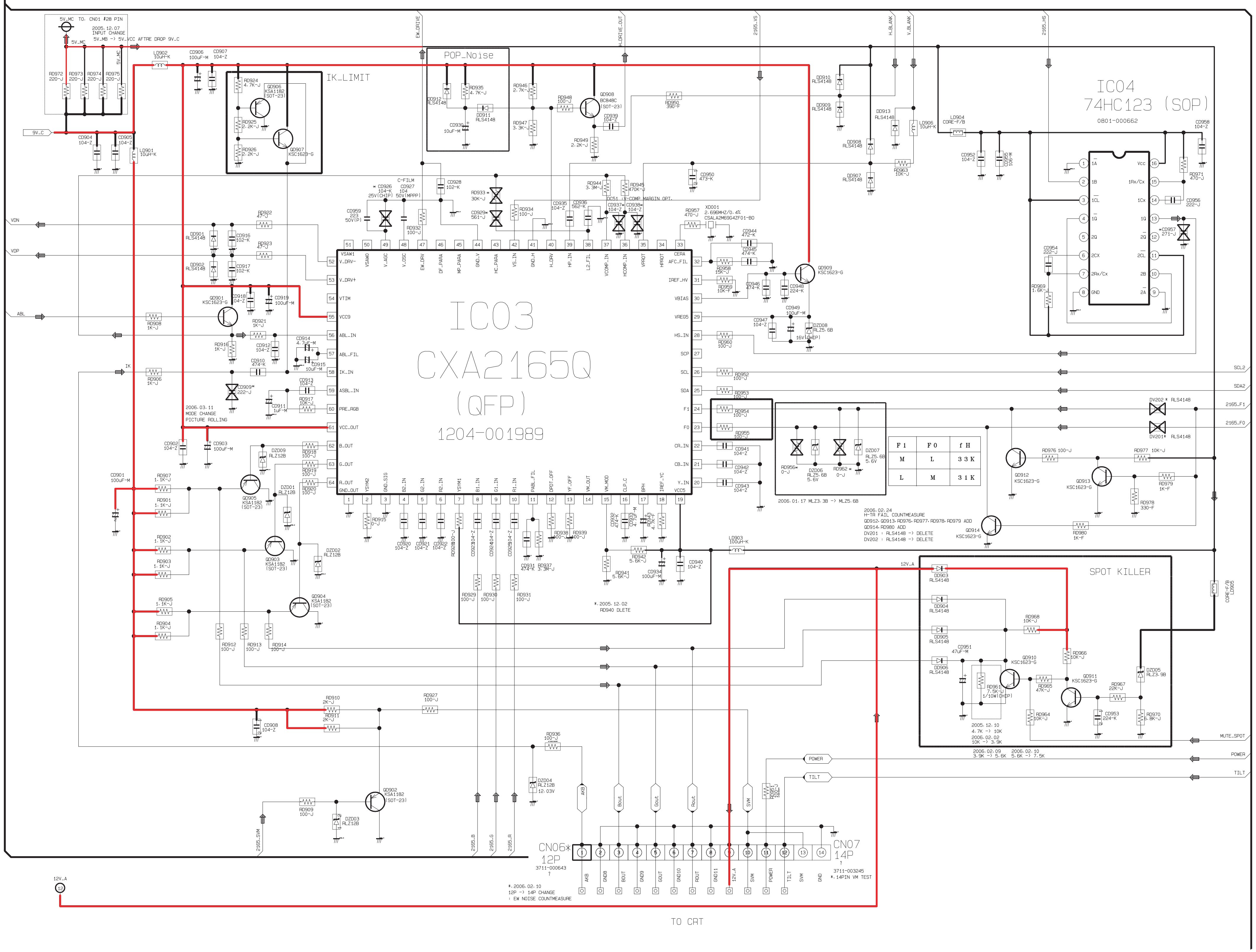
Power

Signal


IC03
CXA2165Q
(QFP)
1204-001989
IC04
74HC123 (SOP)
0801-000662
IK_LIMIT
POP_Noise
SPOT KILLER
CN06* 12P
3711-000643
CN07 14P
3711-003245
*.14PIN VM TEST
TO CRT
5V_MC TO. CN01 #28 PIN
2005.12.07 INPUT CHANGE 5V_MB -> 5V_VCC AFTRE DROP 9V_C
9V_C
12V_A
VDN
VDP
ABL
IK
SCL2
SDA2
2165_F1
2165_F0
MUTE_SPOT
POWER
TILT
EW_DRIVE
H_DRIVE_OUT
2165_VS
2165_HS
H_BLANK
V_BLANK
2165_SVM
2165_B
2165_G
2165_R
2006.03.11 MODE CHANGE PICTURE ROLLING
2006.01.17 MLZ3.3B -> MLZ5.6B
2006.02.24 H-TR FAIL COUNTMEASURE
*.2005.12.02 RD940 DLETE
*.2006.02.10 12P -> 14P CHANGE : EW NOISE COUNTMEASURE
F1 | F0 | fH
M | L | 33K
L | M | 31K
XD001 2.6969MHZ/0.4% CSALA2M69G42F01-B0
C51 COMP MARGIN OPT

10-2-3 Feature Box 3

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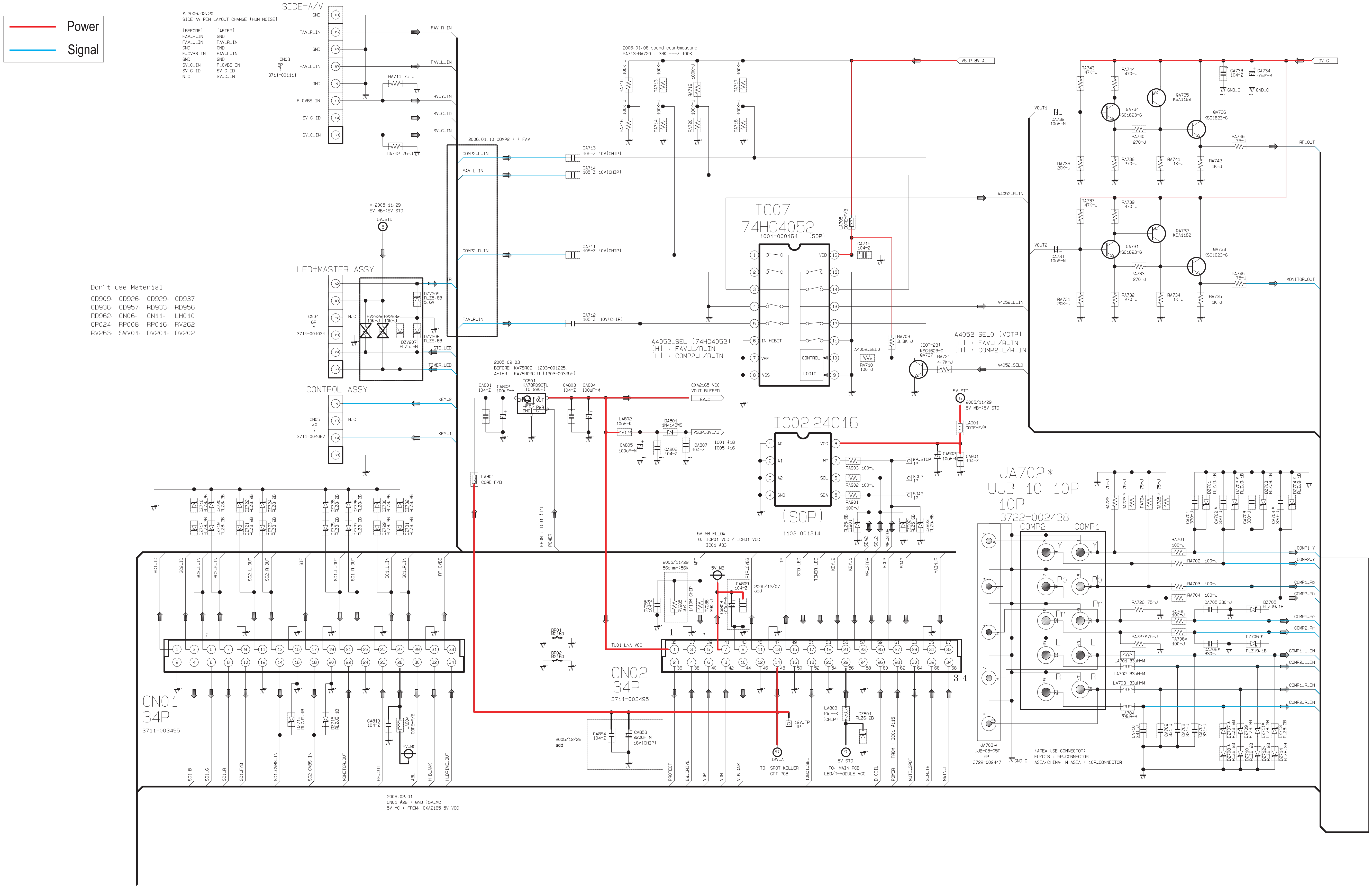
Power
Signal
SIDE-A/V
*.2006.02.20
SIDE-AV PIN LAYOUT CHANGE (HUM NOISE)
CN03
3711-001111
LED+MASTER ASSY
CN04
3711-001031
CONTROL ASSY
CN05
3711-004067
Don't use Material
CD909, CD926, CD929, CD937
CD938, CD957, RD933, RD956
RD962, CN06, CN11, LH010
CP024, RP008, RP016, RV262
RV263, SWV01, DV201, DV202
2006-01-06 sound countmeasure
RA713~RA720 : 33K ---> 100K
IC07
74HC4052
1001-000164 (SOP)
A4052_SEL (74HC4052)
[H] : FAV_L/R_IN
[L] : COMP2_L/R_IN
A4052_SEL0 (VCTP)
[L] : FAV_L/R_IN
[H] : COMP2_L/R_IN
IC02 24C16
(SOP)
1103-001314
IC801
KA78R09CTU
2005-02-03
BEFORE KA78R09 (1203-001225)
AFTER KA78R09CTU (1203-003955)
CXA2165 VCC
VOUT BUFFER
JA702*
UJB-10-10P
10P
3722-002438
COMP2
COMP1
JA703*
UJB-05-05P
5P
3722-002447
(AREA USE CONNECTOR)
EU/CIS : 5P_CONNECTOR
ASIA, CHINA, M.ASIA : 10P_CONNECTOR
CN01
34P
3711-003495
CN02
34P
3711-003495
2006-02-01
CN01 #28 : GND->5V_MC
5V_MC : FROM. CXA2165 5V_VCC
TO. SPOT KILLER CRT PCB
TO. MAIN PCB LED/R-MODULE VCC
RF_OUT
MONITOR_OUT
COMP1_Y
COMP2_Y
COMP1_Pb
COMP2_Pb
COMP1_Pr
COMP2_Pr
COMP1_L_IN
COMP2_L_IN
COMP1_R_IN
COMP2_R_IN

10-2-4 Feature Box 4

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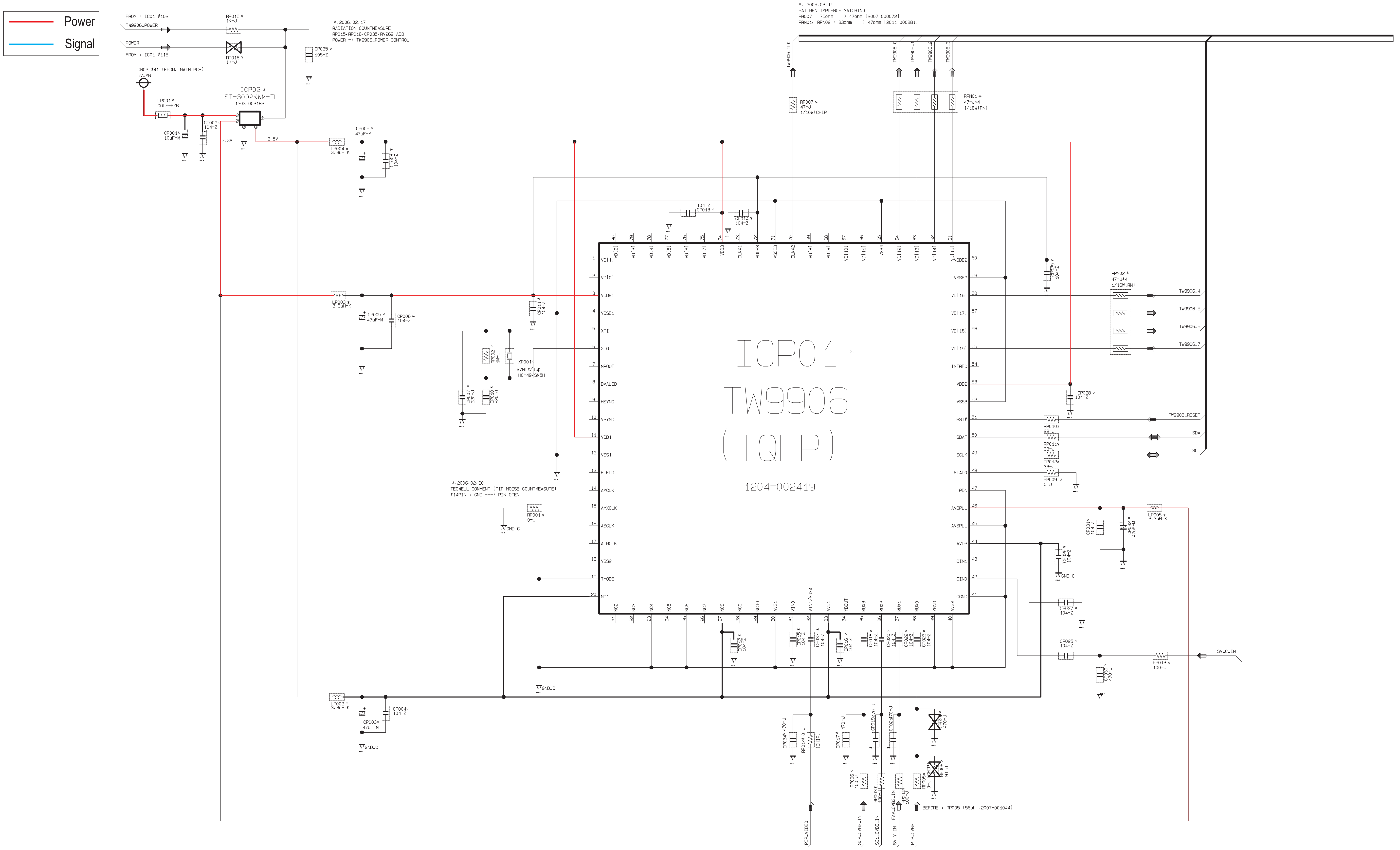
Power
Signal
FROM : IC01 #102
TW9906_POWER
POWER
FROM : IC01 #115
RP015 * 1K-J
RP016 * 1K-J
CP035 * 105-Z
CN02 #41 (FROM. MAIN PCB)
5V_MB
LP001* CORE-F/B
ICP02 *
SI-3002KWM-TL
1203-003183
CP001* 10uF-M
CP002* 104-Z
3.3V
2.5V
LP004 * 3.3uH-K
CP009 * 47uF-M
CP008 * 104-Z
TW9906_CLK
TW9906_0
TW9906_1
TW9906_2
TW9906_3
RP007 * 47-J 1/10W(CHIP)
RPN01 * 47-J*4 1/16W(RN)
CP013 * 104-Z
CP014 * 104-Z
LP003 * 3.3uH-K
CP005 * 47uF-M
CP006 * 104-Z
CP011 * 104-Z
RP002 * 1M-J
XP001* 27MHz/16pF HC-49/SM5H
CP007 * 220-J
CP010 * 220-J
RP001 * 0-J
GND_C
ICP01 *
TW9906
(TQFP)
1204-002419
1 VD[1]
2 VD[0]
3 VDDE1
4 VSSE1
5 XTI
6 XTO
7 MPOUT
8 DVALID
9 HSYNC
10 VSYNC
11 VDD1
12 VSS1
13 FIELD
14 AMCLK
15 AMXCLK
16 ASCLK
17 ALRCLK
18 VSS2
19 TMODE
20 NC1
21 NC2
22 NC3
23 NC4
24 NC5
25 NC6
26 NC7
27 NC8
28 NC9
29 NC10
30 AVS1
31 VIN0
32 VIN1/MUX4
33 AVD1
34 YBOUT
35 MUX3
36 MUX2
37 MUX1
38 MUX0
39 VGND
40 AVS2
41 CGND
42 CIN0
43 CIN1
44 AVD2
45 AVSPLL
46 AVDPLL
47 PDN
48 SIAD0
49 SCLK
50 SDAT
51 RST#
52 VSS3
53 VDD2
54 INTREQ
55 VD[19]
56 VD[18]
57 VD[17]
58 VD[16]
59 VSSE2
60 VDDE2
61 VD[15]
62 VD[14]
63 VD[13]
64 VD[12]
65 VSS4
66 VD[11]
67 VD[10]
68 VD[9]
69 VD[8]
70 CLKX2
71 VSSE3
72 VDDE3
73 CLKX1
74 VDD3
75 VD[7]
76 VD[6]
77 VD[5]
78 VD[4]
79 VD[3]
80 VD[2]
CP029 * 104-Z
RPN02 * 47-J*4 1/16W(RN)
TW9906_4
TW9906_5
TW9906_6
TW9906_7
CP028 * 104-Z
TW9906_RESET
SDA
SCL
RP010* 22-J
RP011* 33-J
RP012* 33-J
RP009 * 0-J
CP031* 104-Z
CP032 * 47uF-M
LP005 * 3.3uH-K
CP026 * 104-Z
GND_C
CP027 * 104-Z
CP025 * 104-Z
CP030 * 470-J
RP013 * 100-J
SV_C_IN
CP012 * 104-Z
CP015 * 104-Z
CP016 * 104-Z
CP018 * 104-Z
CP020 * 104-Z
CP022 * 104-Z
CP023 * 104-Z
GND_C
LP002 * 3.3uH-K
CP003* 47uF-M
CP004* 104-Z
GND_C
CP034* 470-J
RP014* 0-J (CHIP)
CP017 * 470-J
CP019* 470-J
CP021* 470-J
CP024 * 470-J
RP008 * 91-J (CHIP)
RP006 * 100-J
RP003* 100-J
RP004* 100-J
RP005* 0-J
PIP_VIDEO
SC2_CVBS_IN
SC1_CVBS_IN
FAV_CVBS_IN
SV_Y_IN
PIP_CVBS

*.2006.02.17
RADIATION COUNTMEASURE
RP015, RP016, CP035, RV269 ADD
POWER -> TW9906_POWER CONTROL

*. 2006.03.11
PATTREN IMPDENCE MATCHING
PR007 : 75ohm ---> 47ohm [2007-000072]
PRN01, RPN02 : 33ohm ---> 47ohm [2011-000881]

*.2006.02.20
TECWELL COMMENT (PIP NOISE COUNTMEASURE)
#14PIN : GND ---> PIN OPEN

BEFORE : RP005 (56ohm, 2007-001044)

10-2-5 Feature Box 5

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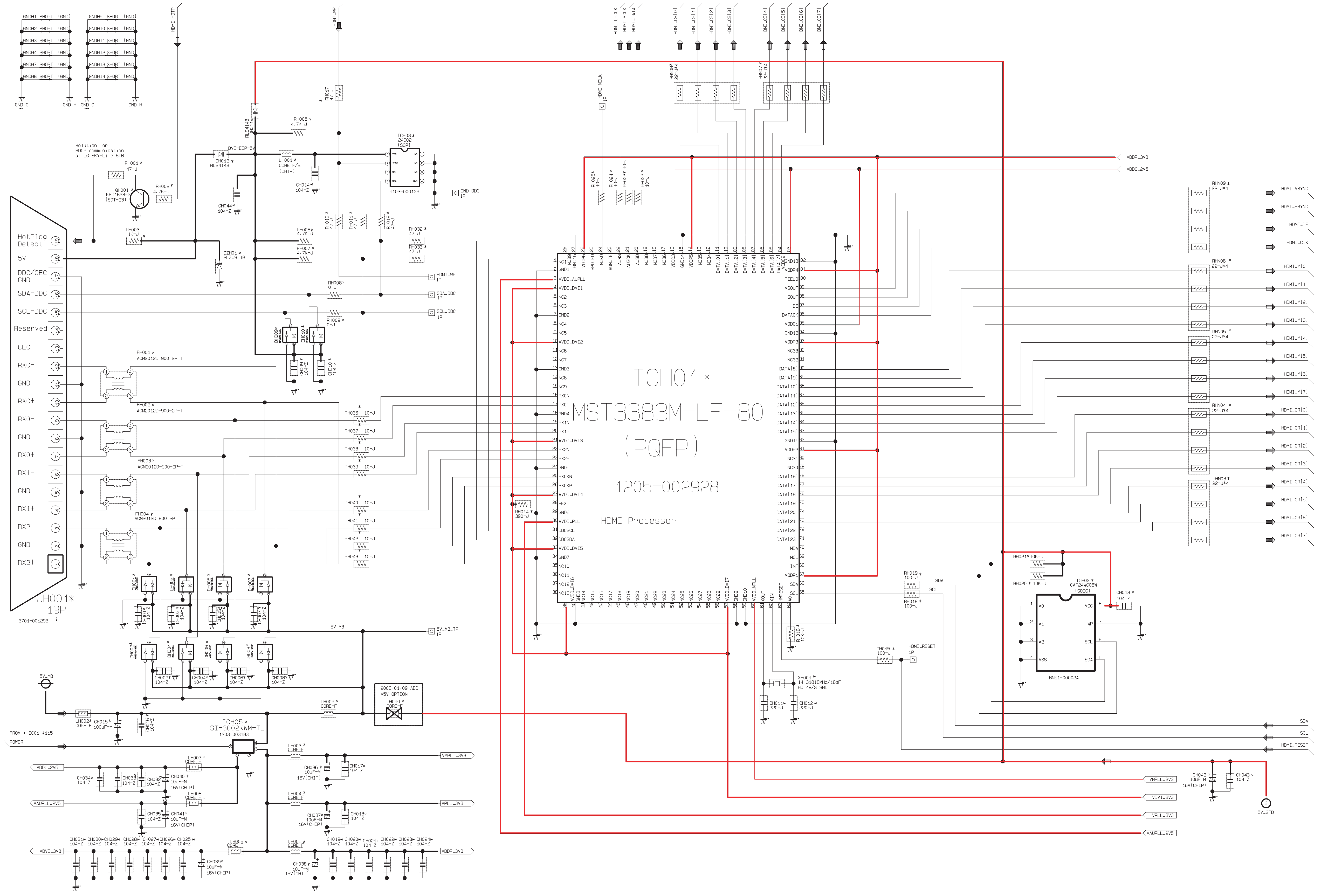
🟥	Power
🟦	Signal


ICH01 *
MST3383M-LF-80
(PQFP)
1205-002928
HDMI Processor
JH001 *
19P
3701-001293
HotPlug Detect
5V
DDC/CEC GND
SDA-DDC
SCL-DDC
Reserved
CEC
RXC-
GND
RXC+
RX0-
GND
RX0+
RX1-
GND
RX1+
RX2-
GND
RX2+
Solution for HDCP communication at LG SKY-Life STB
ICH03 * 24C02 (SOP)
1103-000129
ICH02 * CAT24WC08W (SOIC)
BN11-00002A
ICH05 * SI-3002KWM-TL
1203-003183
XH001 * 14.31818MHz/16pF HC-49/S-SMD
2006.01.09 ADD A5V OPTION
FROM : IC01 #115
POWER
5V_MB
5V_MB_TP
5V_STD
HDMI_HOTP
HDMI_WP
HDMI_LPCLK
HDMI_SCLK
HDMI_DATA
HDMI_MCLK
HDMI_CB[0]
HDMI_CB[1]
HDMI_CB[2]
HDMI_CB[3]
HDMI_CB[4]
HDMI_CB[5]
HDMI_CB[6]
HDMI_CB[7]
HDMI_VSYNC
HDMI_HSYNC
HDMI_DE
HDMI_CLK
HDMI_Y[0]
HDMI_Y[1]
HDMI_Y[2]
HDMI_Y[3]
HDMI_Y[4]
HDMI_Y[5]
HDMI_Y[6]
HDMI_Y[7]
HDMI_CR[0]
HDMI_CR[1]
HDMI_CR[2]
HDMI_CR[3]
HDMI_CR[4]
HDMI_CR[5]
HDMI_CR[6]
HDMI_CR[7]
SDA
SCL
HDMI_RESET
VDDP_3V3
VDDC_2V5
VMPLL_3V3
VDVI_3V3
VPLL_3V3
VAUPLL_2V5
GND_DDC
SDA_DDC
SCL_DDC
GND_C
GND_H

10-3 CRT

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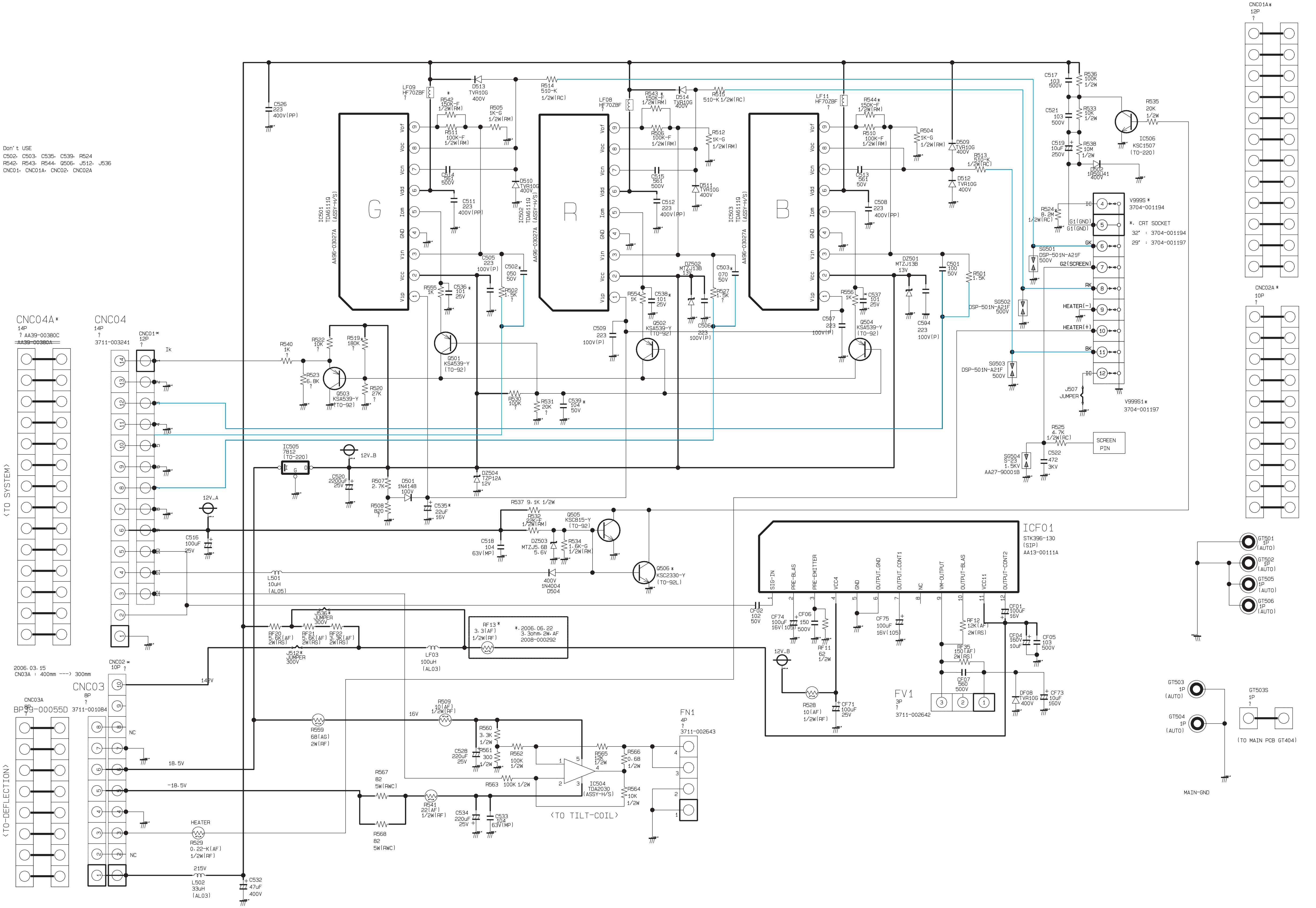
🟥 Power

🟦 Signal


Don't USE
C502, C503, C535, C539, R524
R542, R543, R544, Q506, J512, J536
CNC01, CNC01A, CNC02, CNC02A
IC501 TDA6111Q (ASSY-H/S) AA96-03027A
IC502 TDA6111Q (ASSY-H/S) AA96-03027A
IC503 TDA6111Q (ASSY-H/S) AA96-03027A
G
R
B
Vof
Voc
Vcn
Vdd
Iom
GND
Vin
Vcc
Vip
CNC04A* 14P AA39-00380C
CNC04 14P 3711-003241
CNC01* 12P
<TO SYSTEM>
IC505 7812 (TO-220)
12V_B
12V_A
Q501 KSA539-Y (TO-92)
Q502 KSA539-Y (TO-92)
Q503 KSA539-Y (TO-92)
Q504 KSA539-Y (TO-92)
Q505 KSC815-Y (TO-92)
Q506* KSC2330-Y (TO-92L)
IC506 KSC1507 (TO-220)
V999S* 3704-001194
*. CRT SOCKET
32" : 3704-001194
29" : 3704-001197
V999S1* 3704-001197
G2(SCREEN)
G1(GND)
HEATER(-)
HEATER(+)
SCREEN PIN
J507 JUMPER
CNC01A* 12P
CNC02A* 10P
ICF01 STK396-130 (SIP) AA13-00111A
SIG-IN
PRE-BIAS
PRE-EMITTER
VCC4
GND
OUTPUT_GND
OUTPUT_CONT1
NC
VM-OUTPUT
OUTPUT-BIAS
VCC11
OUTPUT-CONT2
FV1 3P 3711-002642
GT501 1P (AUTO)
GT502 1P (AUTO)
GT505 1P (AUTO)
GT506 1P (AUTO)
GT503 1P (AUTO)
GT504 1P (AUTO)
GT503S 1P
(TO MAIN PCB GT404)
MAIN-GND
2006.03.15
CNC03A : 400mm ---> 300mm
CNC02* 10P
CNC03 8P 3711-001084
CNC03A 8P BP39-00055D
<TO-DEFLECTION>
NC
18.5V
-18.5V
HEATER
215V
14V
16V
*.2006.06.22 3.3ohm, 2W, AF 2008-000292
IC504 TDA2030 (ASSY-H/S)
FN1 4P 3711-002643
<TO TILT-COIL>

10-4 AV

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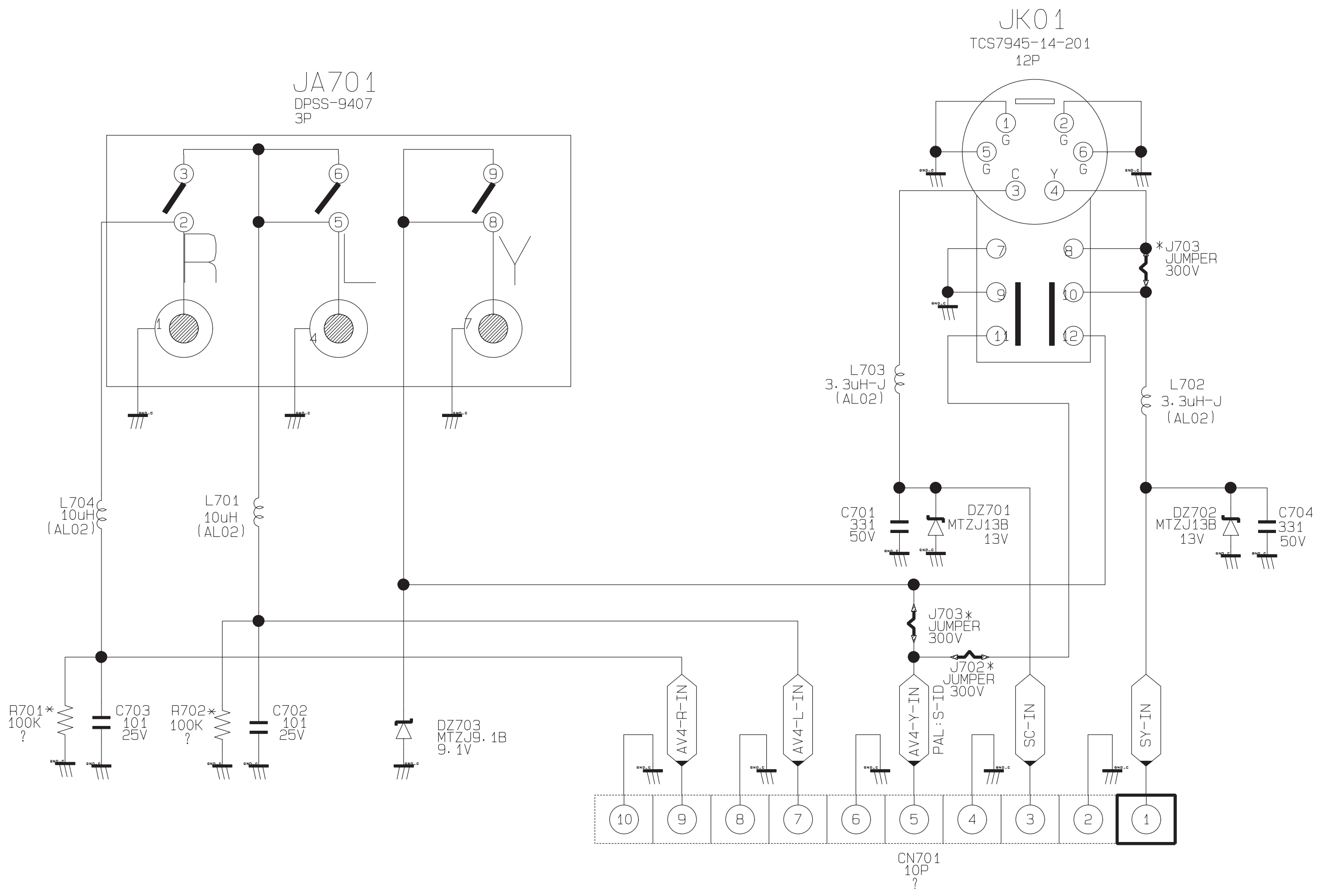
JA701
DPSS-9407
3P
R
L
Y
JK01
TCS7945-14-201
12P
G
C
Y
J703
JUMPER
300V
L703
3.3uH-J
(AL02)
L702
3.3uH-J
(AL02)
L704
10uH
(AL02)
L701
10uH
(AL02)
C701
331
50V
DZ701
MTZJ13B
13V
DZ702
MTZJ13B
13V
C704
331
50V
J703*
JUMPER
300V
J702*
JUMPER
300V
R701*
100K
?
C703
101
25V
R702*
100K
?
C702
101
25V
DZ703
MTZJ9.1B
9.1V
AV4-R-IN
AV4-L-IN
AV4-Y-IN
PAL:S-ID
SC-IN
SY-IN
CN701
10P
?

OPTION

LOC	NT	PAL
J701	DELETE	JUMPER
J702	DELETE	JUMPER
J703	JUMPER	DELETE
R701	DELETE	1/8W 100K
R702	DELETE	1/8W 100K

10-5 CONTROL

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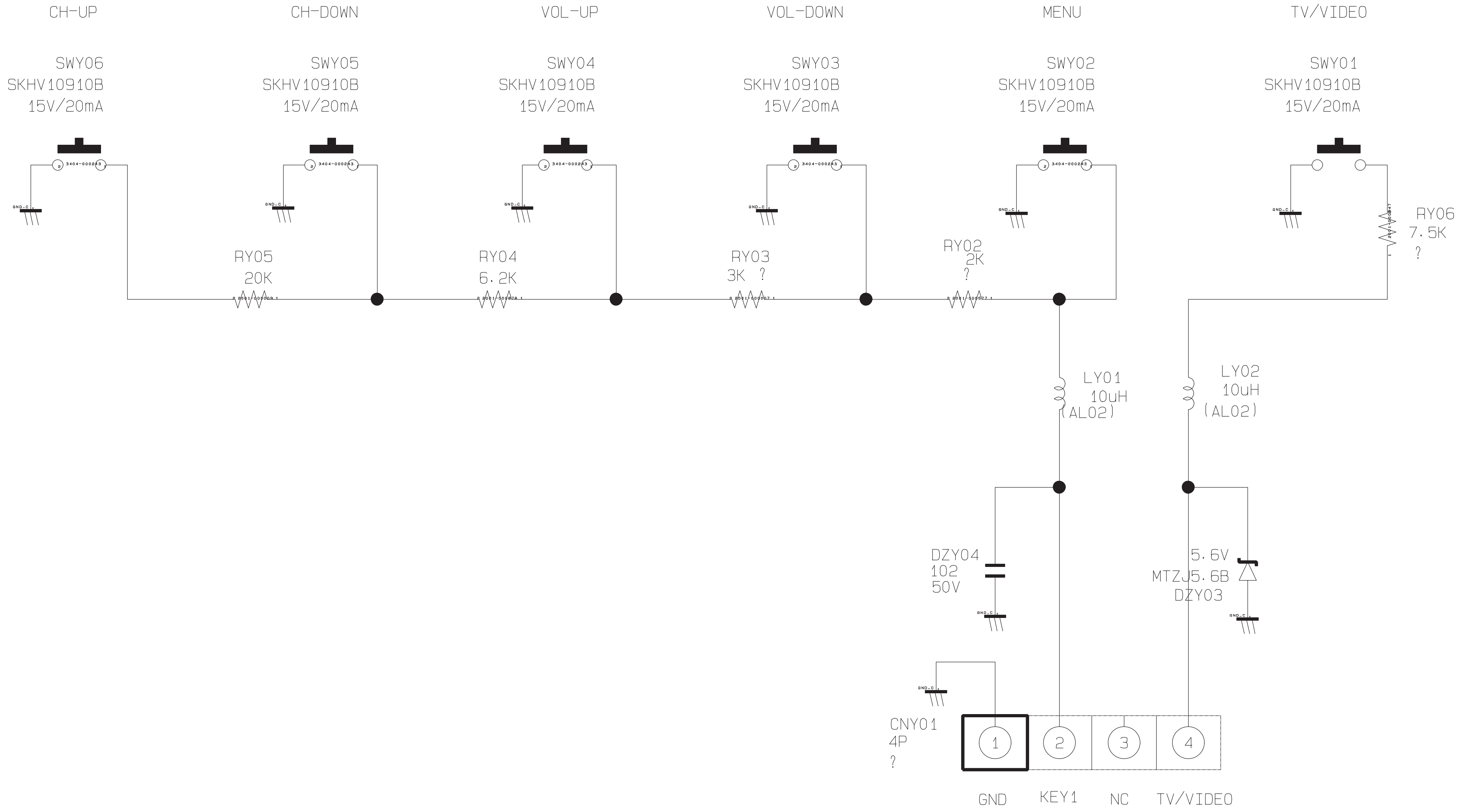
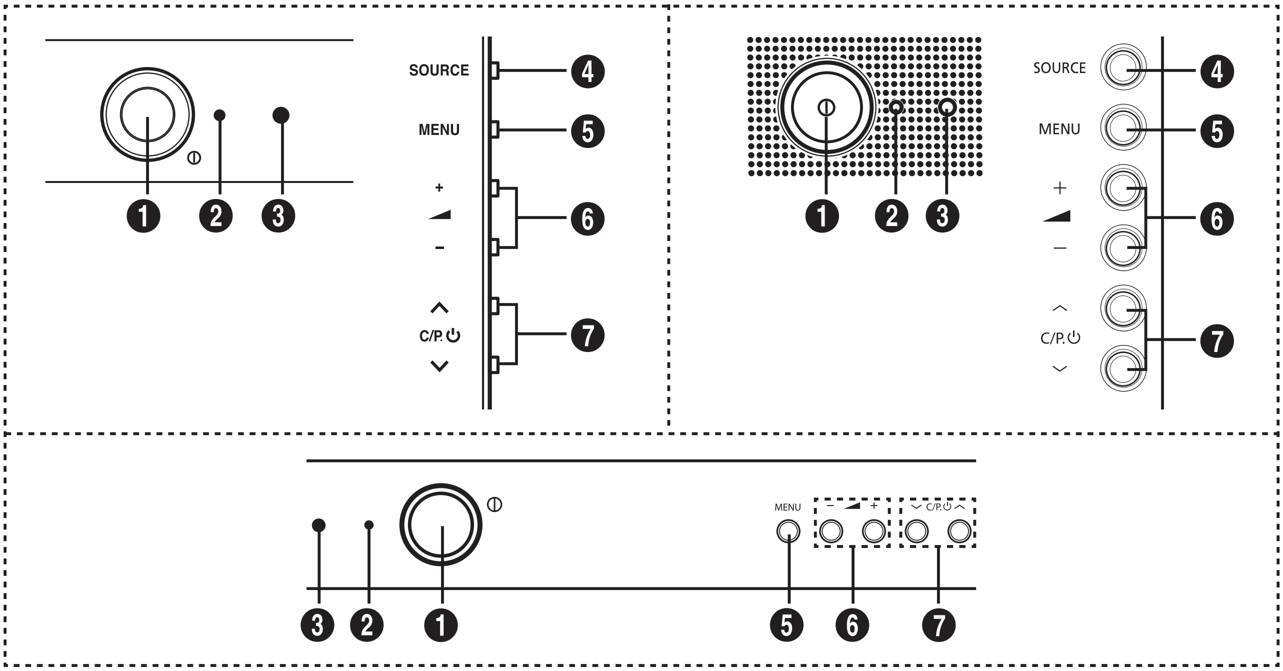

CH-UP
SWY06
SKHV10910B
15V/20mA
CH-DOWN
SWY05
SKHV10910B
15V/20mA
VOL-UP
SWY04
SKHV10910B
15V/20mA
VOL-DOWN
SWY03
SKHV10910B
15V/20mA
MENU
SWY02
SKHV10910B
15V/20mA
TV/VIDEO
SWY01
SKHV10910B
15V/20mA
RY05
20K
RY04
6.2K
RY03
3K ?
RY02
2K
?
RY06
7.5K
?
LY01
10uH
(AL02)
LY02
10uH
(AL02)
DZY04
102
50V
5.6V
MTZJ5.6B
DZY03
CNY01
4P
?
1
2
3
4
GND
KEY1
NC
TV/VIDEO

11. Operation Instruction & Installation

11-1 Product Features and Functions

11-1-1 Control Buttons

You can control your TV's basic features, including the on-screen menu.
To use the more advanced features, you must use the remote control.



❶ Power On/Off
Press to turn the TV on and off.

❷ Standby indicator
Blinks and turns off when the power is on and lights up in stand-by mode.

❸ Remote control sensor
Aim the remote control towards this spot on the TV.

❹ SOURCE
Displays a menu of all of the available input sources (TV, Ext.1, Ext.2, AV/S-Video, Component, HDMI).

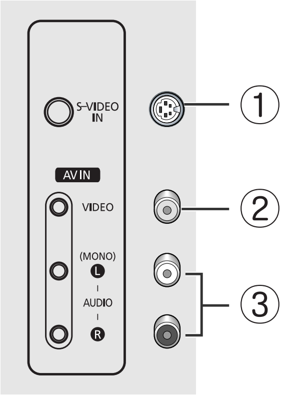
❺ MENU
Press to see an on-screen menu of your TV’s features.

❻ - ◢ +
Press to decrease or increase the volume.
In the on-screen menu, use the - ◢ + buttons as you use the ◀ and ▶ buttons or ENTER (↵) button on the remote control.

❼ ∨ C/P. ⏻ ∧
Press to change channels.
In the on-screen menu, use the ∨ C/P. ⏻ ∧ buttons as you use the ▲ and ▼ buttons on the remote control.

11-1-2 Side Panel Jacks

You can use the side panel jacks to connect an A/V component that is used only occasionally, such as a camcorder or video game.


S-VIDEO IN
AV IN
VIDEO
(MONO) L
AUDIO
R
①
②
③

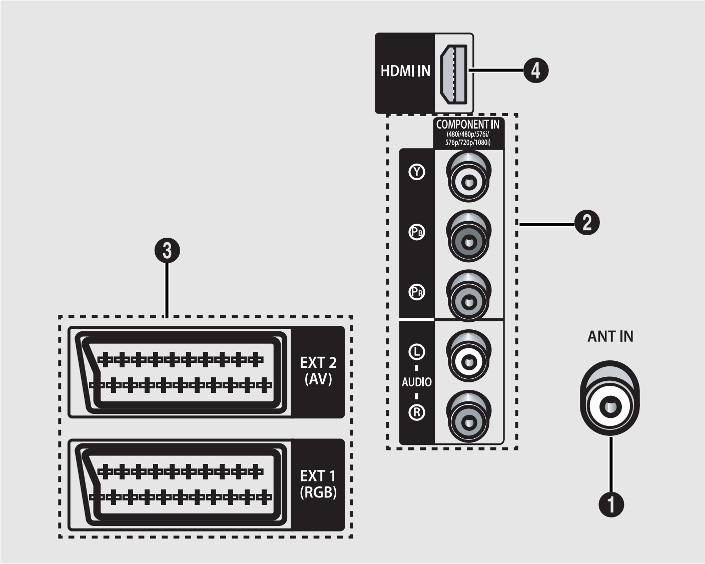
① **S-VIDEO INPUT**
Connect a S-video signal from a camcorder or video game.

② **VIDEO INPUT**
Used to connect a video signal from a camcorder or video game.

③ **AUDIO INPUT**
Connect the audio signals from a camcorder or video game.

11-1-3 Connection Jacks (Rear)

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player. Because there are three sets of input jacks, you can connect three different A/V components (i.e., a VCR and a DVD, 2 VCRs, etc.)


HDMI IN
❹
COMPONENT IN (480i/480p/576i/576p/720p/1080i)
Y
PB
PR
❷
❸
L
AUDIO
R
ANT IN
EXT 2 (AV)
EXT 1 (RGB)
❶

❶ ANT IN
75Ω Coaxial connector for Aerial/Cable Network.

❷ COMPONENT IN (480i/480p/576i/576p/720p/1080i)
Video (Y/PB/PR) and audio (AUDIO L/R) inputs for Component.

❸ EXT 1 (RGB) / EXT 2 (AV)
Inputs or outputs for external devices, such as VCR, DVD, video game device or video disc players.

❹ HDMI IN
Connect to the HDMI input jack for device with HDMI output.

11-1-4 Remote Control

You can use the remote control up to about 23 feet from the TV. When using the remote, always point it directly at the TV. You can also use your remote control to operate your VCR, DVD, Cable box, and Samsung Set-top Boxes.

❶ Television stand-by

❷ Direct channel selection

❸ One/Two-digit channel selection

❹ Tuner/cable network selection

❺ Channel control

❻ Volume increase

❼ Temporary sound switch-off

❽ Volume decrease

❾ Menu display

❿ Move to the required menu option / Adjust an option value respectively

⓫ Picture-In-Picture On/Off

⓬ Sound effect selection

⓭ Picture effect selection

⓮ Sub picture (PIP) source selection

⓯ Sound mode selection

⓰ Interchange the main and sub picture (PIP)

⓱ Turbo sound

⓲ External input selection

⓳ Switch repeatedly between the last two channels displayed

⓴ Automatic switch-off

㉑ SRS TruSurround XT On/Off

㉒ Next channel

㉓ Previous channel

㉔ Exit from any display

㉕ Change confirmation

㉖ Information display

㉗ Still picture

㉘ Picture size selection

㉙ Sub picture (PIP) channel selection

㉚ Sub picture (PIP) location selection

㉛ Sub picture (PIP) size selection

Teletext Functions

❹ Exit from the teletext display

❾ Teletext index

⓫ Teletext page hold

⓮ Teletext size selection

⓰ Teletext store

⓲ Teletext mode selection (LIST/ FLOF)

⓳ Teletext sub-page

㉒ Teletext next page

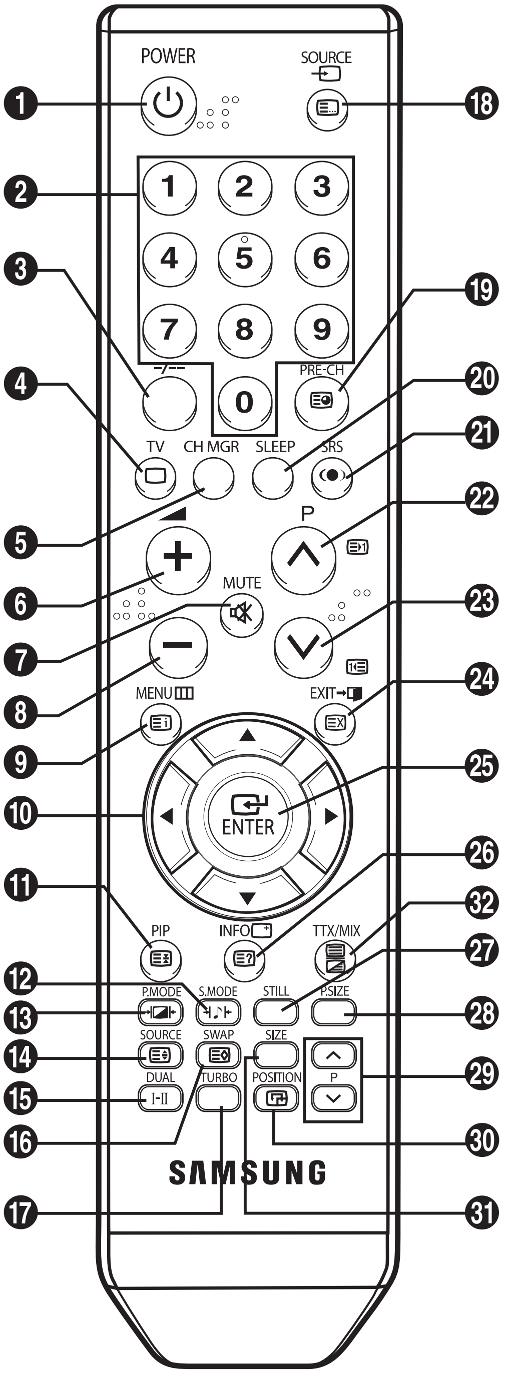
㉓ Teletext previous page

㉔ Teletext cancel

㉖ Teletext reveal

㉜ Teletext display / Mix both Teletext information and the normal broadcast

⓬⓭㉗㉘ Fastext topic selection

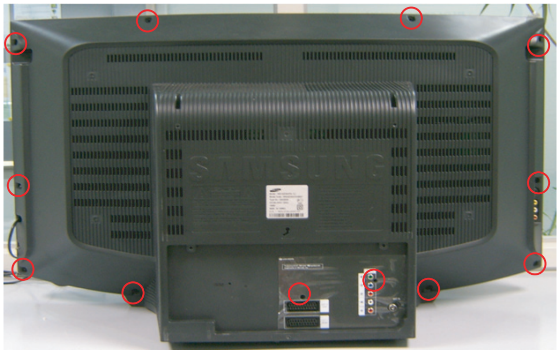
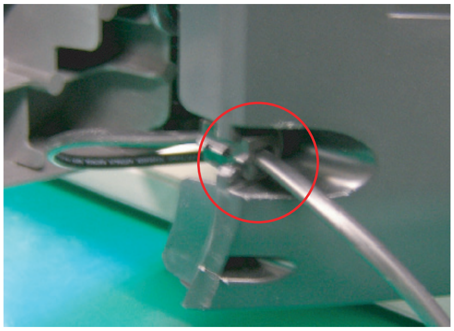

POWER
SOURCE
1
2
3
4
5
6
7
8
9
-/--
0
PRE-CH
TV
CH MGR
SLEEP
SRS
P
MUTE
MENU
EXIT
ENTER
PIP
INFO
TTX/MIX
P.MODE
S.MODE
STILL
P.SIZE
SOURCE
SWAP
SIZE
DUAL
I-II
TURBO
POSITION
P
SAMSUNG
❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
⓬
⓭
⓮
⓯
⓰
⓱
⓲
⓳
⓴
㉑
㉒
㉓
㉔
㉕
㉖
㉜
㉗
㉘
㉙
㉚
㉛

MEMO

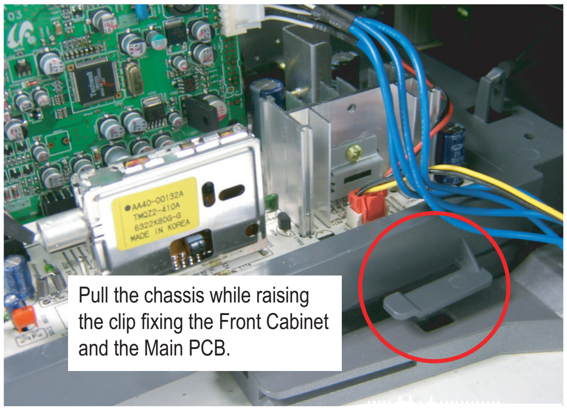
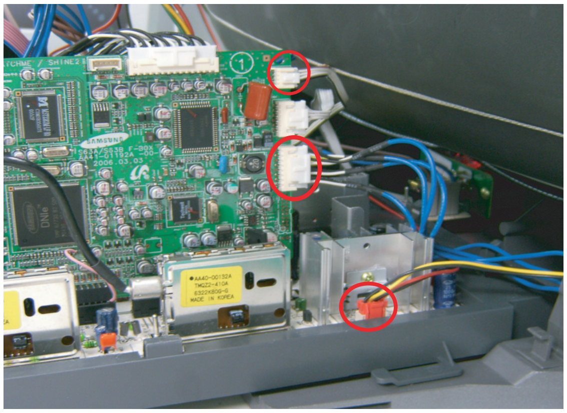
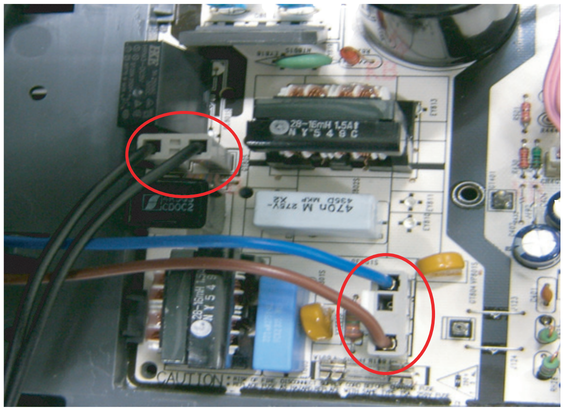
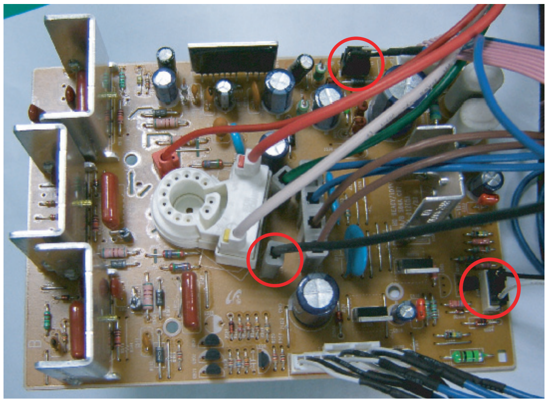
12. Disassembly & Reassembly

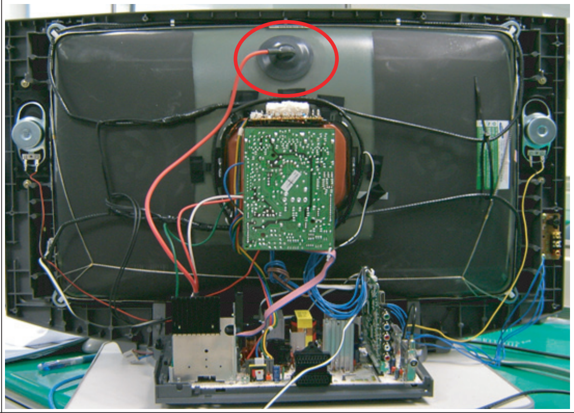
12-1 Overhaul Disassembly & Reassembly

12-1-1 Disassembling the Cabinet

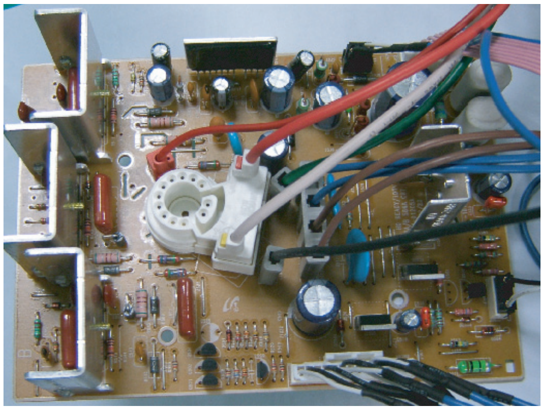
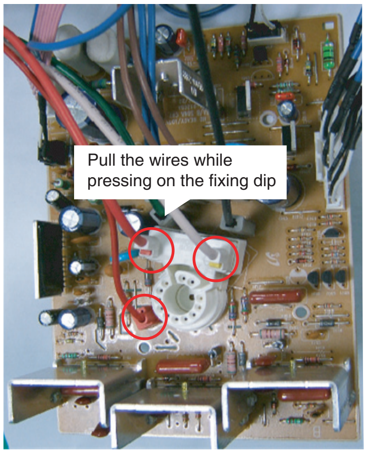
Part Name	Description	Description Photo
Back Cover	① Remove the 12 screws fixing the Back Cover. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A ② Tap the upper part of the Back Cover 2 or 3 times and pull the Back Cover to separate it from the unit. ③ Lift the fixing Chassis up at ○ and pull the Back Cabinet to separate it from the unit. ⚠Notice: Disassemble the product after disconnecting the power cord and discharge the unit to prevent an electric shock and damage to the product due to static electricity.	
Power Cord	① Remove the power cord fixing the Back Cover	

12-1-2 Disassembling the CRT and Chassis

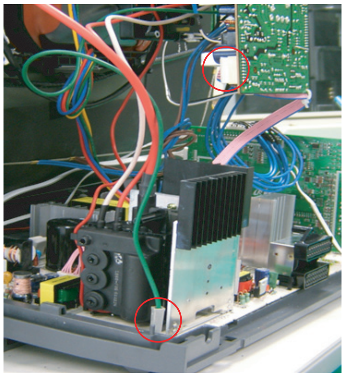
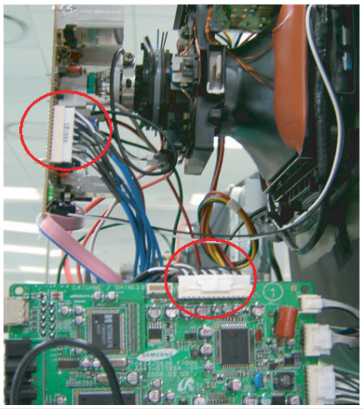
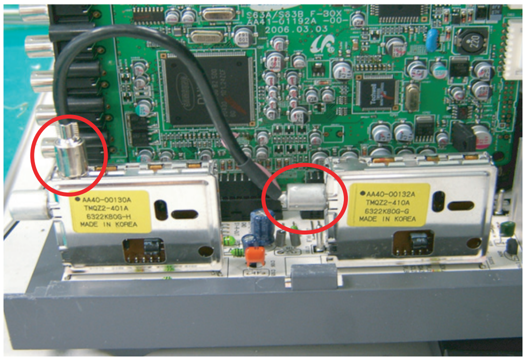
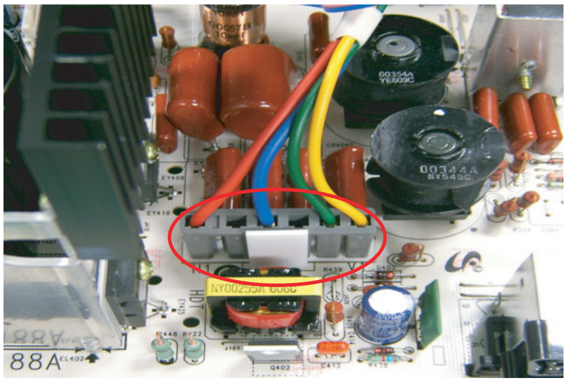
Part Name	Description	Description Photo
Chassis	① Separate the Main chassis from the Front Cabinet. ② Pull the Chassis lifting the fixing clip up. ⚠Notice: Pulling the Chassis by force may damage the clip or the connector. Pull the Chassis just until the clip comes off the hole.	 Pull the chassis while raising the clip fixing the Front Cabinet and the Main PCB.
	① Separate the Speakers, the Side AV Wire, the Front Control from the Feature Box Board. ② Separate the wire from the Wire fixing holder at ○. ⚠Notice: Since there is a clip to connect the Connector Header in the Wire Connector, pulling it by force may damage the clip or the connector. Press the clip down completely and pull the connector.	
	① Separate the D-Coil and power cable from the Front Cabinet and Power Board. ② To separate the power cord, slide the fixing clip and lift the cable up.	
	① Separate the CRT Ass'y from the CRT ② Separate the TBC wire, GND, VM and Tilt cables from the CRT Ass'y sequentially.	

Part Name	Description	Description Photo
Chassis Holder	① Separate the cables connecting the FBT and the CRT. ⚠Notice: Since there may be a remaining high-voltage current within the CRT, take care not to touch the CRT hole with metal or a part of yourself when separating the cables.	

12-1-3 Disassembling the CRT Ass'y

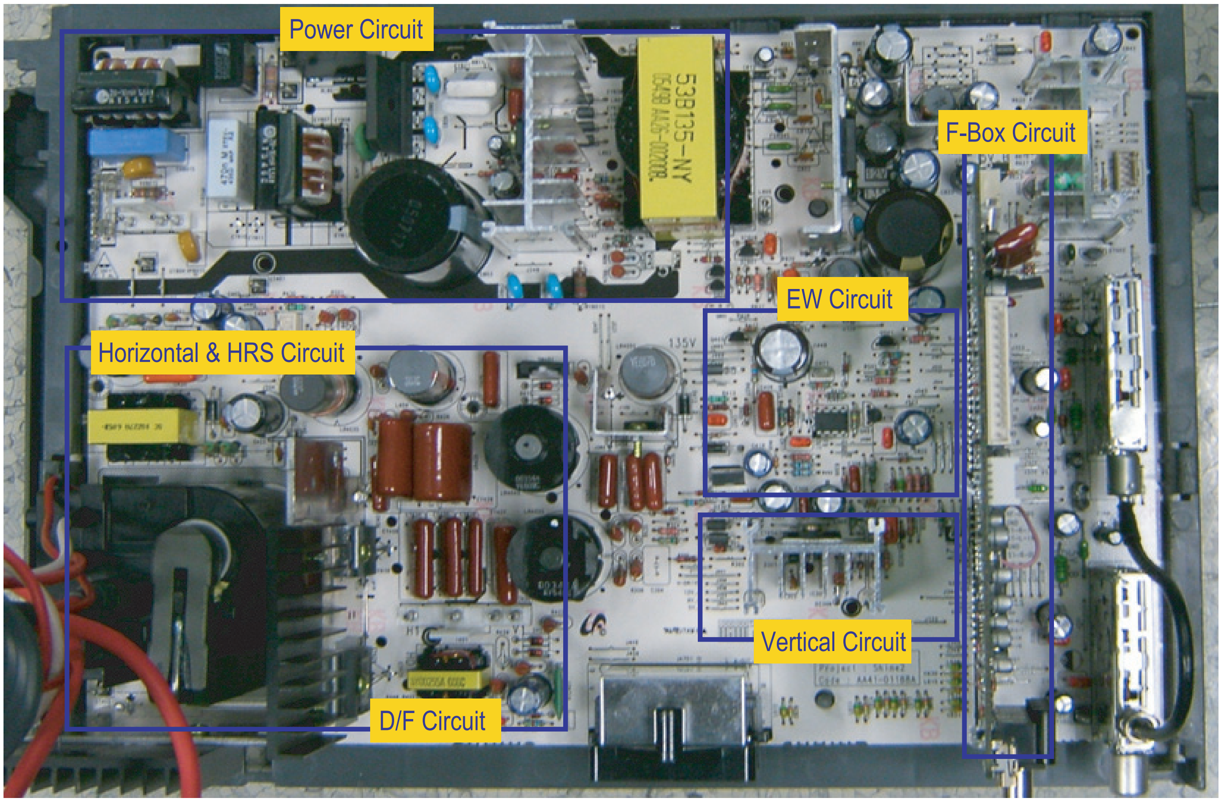
Part Name	Description	Description Photo
CRT Ass'y	① Separate the cables from the Feature Box/Main Board and CRT Ass'y.	
	① Separate the wires from the FBT of the Deflection Board and the CRT Ass'y. ② To separate the thick red and white wires, pull the wires while pressing the push-type clip at the connector. ③ To separate the thin red wire, insert a pin in the small hold next to the hole and pull the wire. ⚠Notice: Take care when separating the wires because pulling the wires by force may damage the socket. In addition, separate the wires on a flat and clean surface so as to prevent scratching of the material and the PCB.	

12-1-4 Disassembling the Deflection Board

Part Name	Description	Description Photo
Deflection Board	① Separate the 8 pin cable from the CRT Assy's.	
	① Separate the 14 pin cable from the Feature Box.	
	① Separate the cable from the Splitter and the Tuner. ② First separate the cable from the Splitter using a tool such as nippers. ⚠Notice: Since pulling the wire by force may damage the coating of the wire, separate the wire holding the metal part with the tool.	
	① Remove the DY Connector from the Main Board.	

13. Circuit Description

13-1 Overall Block Description



※ Bias Circuit structure of S63B sis the same as the existing S62A Circuit.

■ Circuit Constitution.

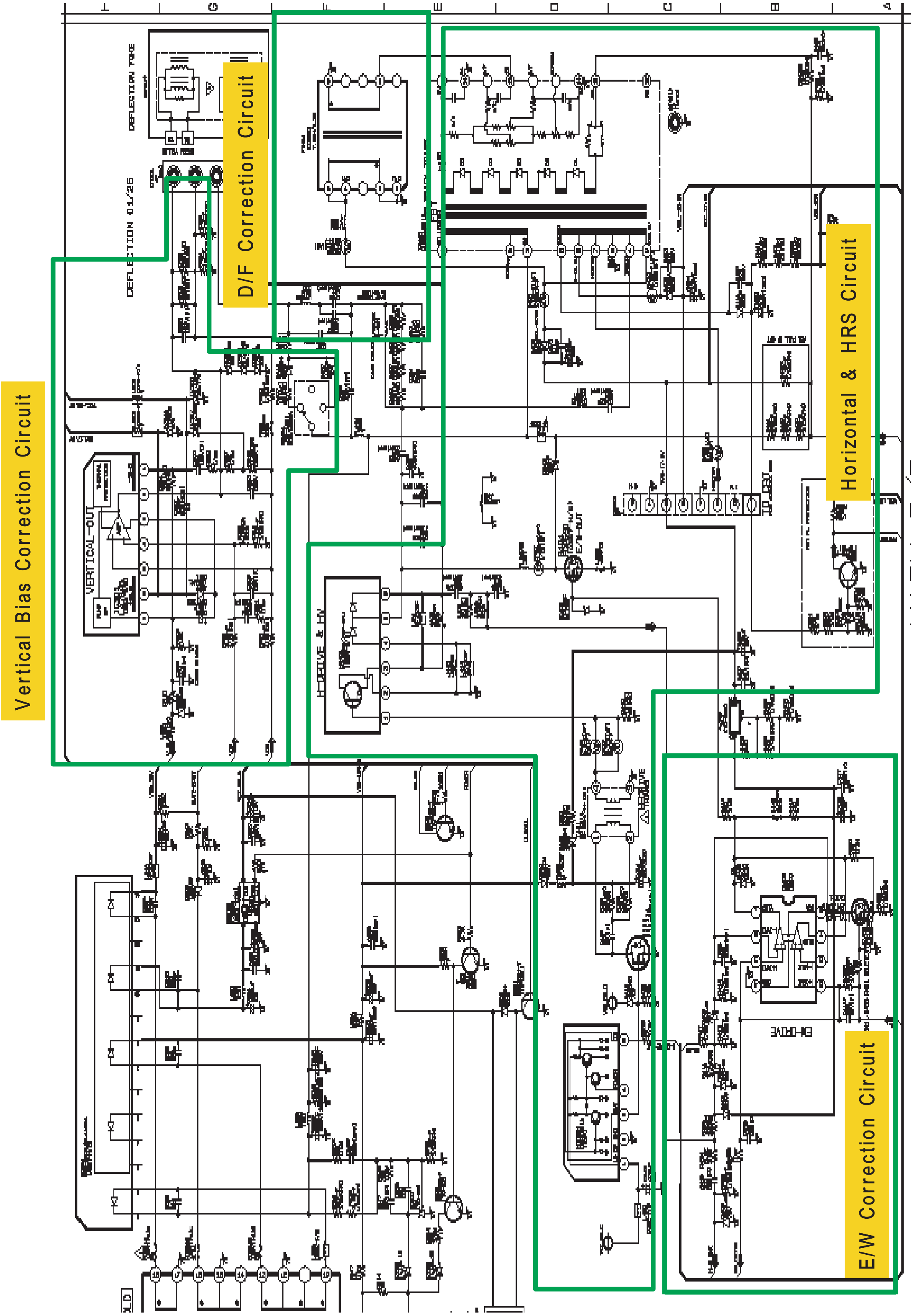
1. Horizontal Bias Part
   - Controls the high voltage generation and horizontal bias.. FBT, HDT, CT condenser etc.

2. Vertical Bias & Vertical (North / South) Correction Circuit
   - While mostly controlling the vertical bias, also corrects the picture lowering of top and bottom. ..LA7845, Vertical TRANS, etc.

3. HRS (Horizontal Raster Shift) Correction Circuit
   - A correction circuit of Linearity distortion on the left and right side of a picture which is caused by awry electron beam from an electron gun.. Correction S/W and surrounding circuits.

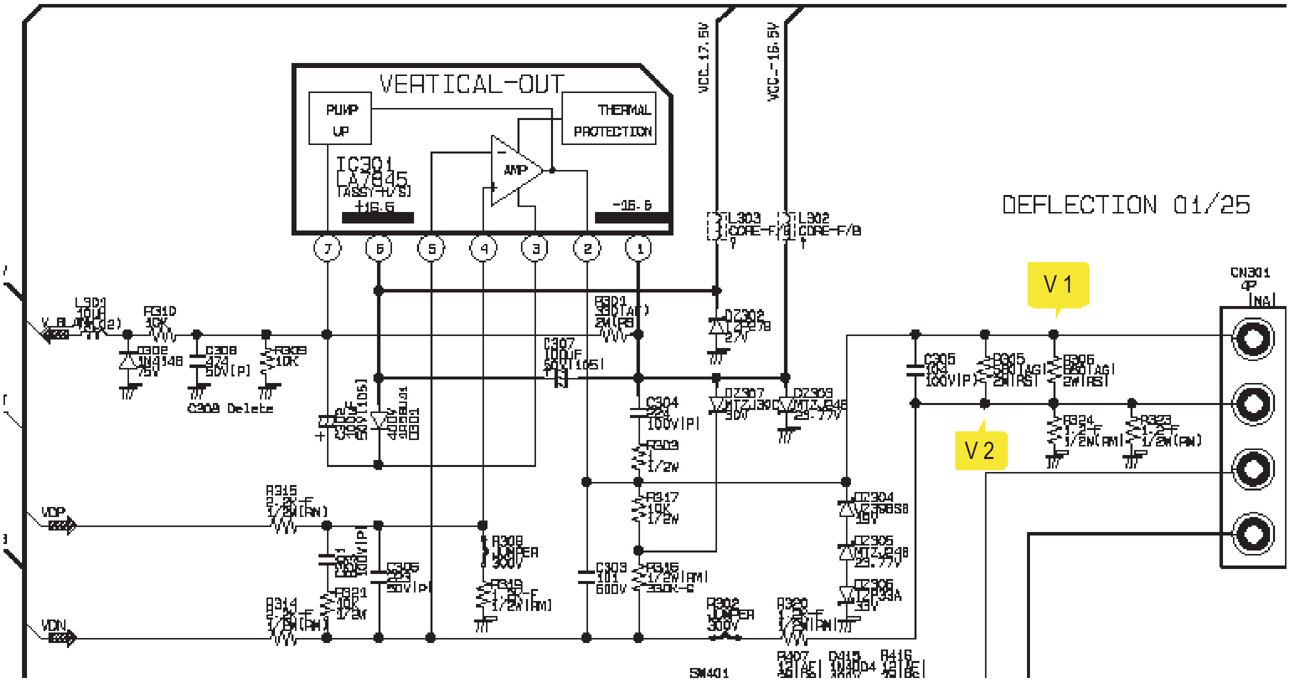
4. D/F (Dynamic Focus) Correction Circuit.
   - Improved Focus feature circuit due to the widened angle of a picture¡¦..D/F Trans, Vertical/Horizontal circuit

5. E/W (East / West) Correction Circuit.
   - A circuit for correcting the spool shape which appears on the left and right part of a picture. This is caused by the difference between the distances from the center of a picture to each corner. KA393, FQP630 etc. (Adopt PWM circuit)


Vertical Bias Correction Circuit
D/F Correction Circuit
Horizontal & HRS Circuit
E/W Correction Circuit
DEFLECTION YOKE
DEFLECTION 01/25
VERTICAL-OUT
H-DRIVE & HV
EW-DRIVE
E/W-OUT

13-2 Partial Block Description

13-2-1 Vertical & Vertical Correction Circuit


VERTICAL-OUT
PUMP UP
THERMAL PROTECTION
AMP
IC301
LA7845
+16.5
-16.5
7
6
5
4
3
2
1
VCC_17.5V
VCC_-16.5V
L303 CORE-F/B
L302 CORE-F/B
DEFLECTION 01/25
V 1
V 2
CN301 4P
V_BLANK
L301
R310 10K
D302 1N4148 75V
C308 474 50V(P)
R309 10K
C308 Delete
R301
C307 100UF 50V(105)
C304 224 100V(P)
R303 1/2W
R317 10K 1/2W
R315 1/2W(RN)
R314 1/2W(RN)
R321 10K 1/2W
C305 223 50V(P)
R308 JUMPER 300V
R319 1/2W(RM)
C303 101 500V
R316 1/2W(RM) 330K-G
R302 JUMPER 300V
R320 1/2W(RM)
SW401
R407
D415 1N4004
R416
DZ302 27V
DZ307 MTZJ30C 30V
DZ309 MTZJ24B 23.77V
DZ304 15V
DZ305 MTZJ24B 23.77V
DZ306 33V
C305 103 100V(P)
R305 2W(RS)
R306 2W(RS)
R324 1/2W(RM)
R323 1/2W(RN)
VDP
VDN

ⓐ Understanding of Vertical Circuit and Operation Principle.

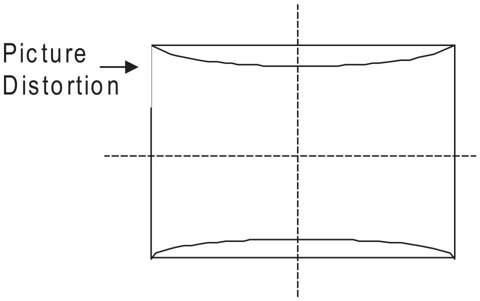
▶ What is a Vertical correction circuit?

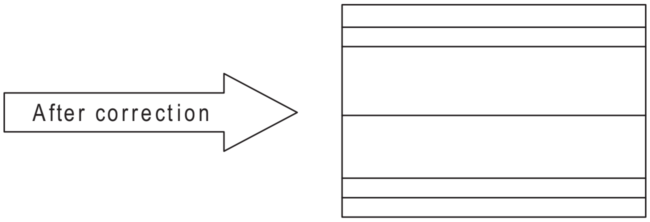
- If the bias angle of a picture widens, the distance from the center of a picture to each corner becomes farther as it moves to periphery. This causes the picture being distorted (Picture Lowering) vertically in a shape of a spool because of the strong bias at four corners which are the farthest from the center.
  Correction effect to the amount of a correction signal can be made by crossing Parabolic current of a vertical period over the vertical bias current and applying it.

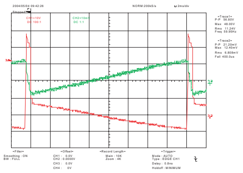
▶ Vertical Circuit Constitution and Operation Principle.

- Consists of L304, C305, C439, R312. Symmetrize the up and down amplitude using the saturable reactor of L304 and adjust Vertical Gain by controlling the capacity value of C305 and C439
  If the correction vector is excessive, one can slightly reduce the resistance of R312

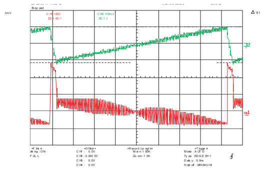
ⓑ Comparison before and after of Vertical signal correction


Picture
Distortion


After correction

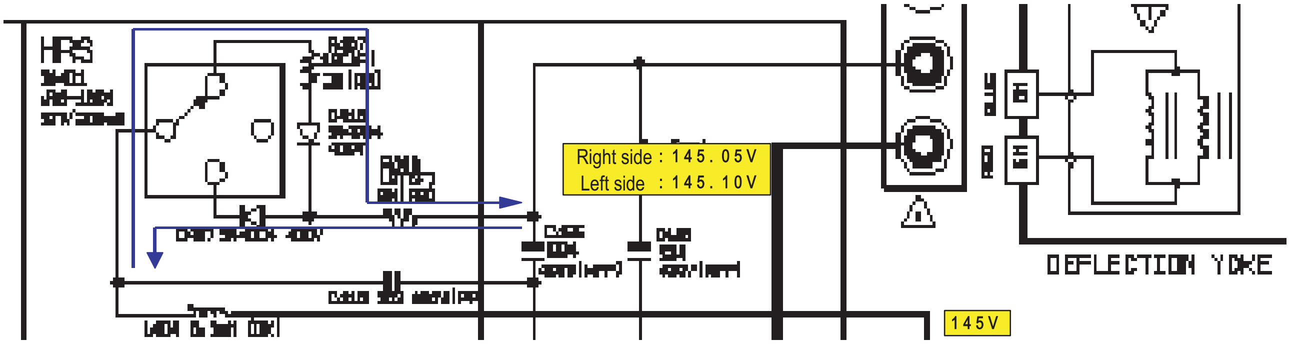


< Normal Vertical Signal >



< Vertical Wave form after correction >

13-2-2 HRS Correction



ⓐ Understanding and Constitution of HRS Correction

▶ What is HRS (Horizontal Raster Shift) circuit?

- When electron BEAM emanates from CRT, it must form the image evenly on the center of a screen. However, the left-right linearity can be awry due to the micro-distortion of horizontal angle while producing CRT. HRS is a compensatory circuit which crosses DC voltage over CS condenser on horizontal output board to correct the distortion.

ⓑ HRS Circuit Operation and Picture Movement

▶ Operational Principle.

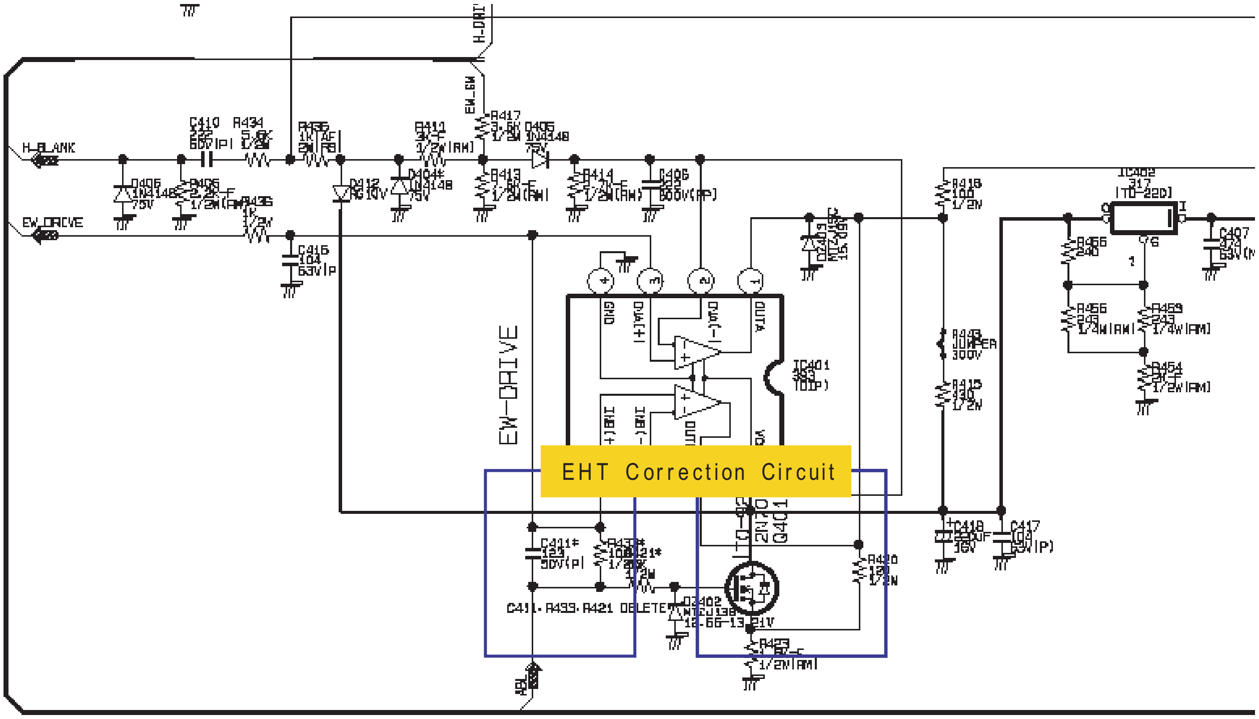
- HRS circuit consists of R407, D415, D407, SW401, C415, L404. If switch SW401 (Service S/W) to the direction of R407, it raises the C426 CS condenser voltage through D415 and the picture moves to right. If switch SW401 to the direction of D417, the picture moves to left.

C415 is functioning as a condenser which stops generating current. It can control the left-right movement since the rechargeable voltage varies as the condenser capacity value varies.
That is, the larger the C415 capacity value becomes, the bigger the left-right movement will be.

▶ Picture Movement during 0HRS Connection
* Direction of SW407 Switch .... Center : Not corrected.
.... D415 : moves to the right of a picture
.... D417 : moves to the left of a picture

Condition	Total Length of a Picture Moved (m/m)					
	Left		Center		Right	
	To Left	To Right	To Left	To Right	To Left	To Right
After	5.5	6.5	1.5	2	6.5	6

13-2-3 E/W Circuit Block



ⓐ Understanding of E/W Circuit

▶ What is an E/W (East / West) Correction Circuit?

- If the bias angle of a picture widens, the distance from the center of a picture to each corner becomes farther as it moves to periphery. This causes the picture being distorted (Picture Lowering) horizontally in a shape of a spool because of the strong bias at four corners where are the farthest from the center. E/W is a circuit which corrects the spool-shape on the left and right part by crossing Parabollic wave form over the horizontal output board and controls the current which flows through terminal no.47. Parabollic wave comes out from terminal no.47 of CXA2165 CHROMA IC(IC31)
  It also controls the horizontal-related factors of Factory data such as picture size, size change and Parabola gain change. It has an essential role of minimizing the picture swaying (High Voltage Regulation)

ⓑ E/W Circuit Constitution and Operation

▶ E/W Circuit Constitution and Operation Principles.

- E/W circuit consists of KA393(comparator), FQP630(output TR), and other parts. This uses a method in which PWM controls the circuit using a comparator. The advantage of this PWM Control method is that POWER Loss hardly occurs and generates little heat when using low H/S.
  Input E/W signal to terminal no 3,5 of IC401(KA393) and carrier wave to terminal no 2,6. Carrier wave can be made by reducing the horizontal collector voltage and integrating the wave form using D405,R414 and C406.
  Then the carrier wave is compared with E/W signal in IC401 and outputs PWM(Pulse Width Modulation) wave form. Bias current shall be controlled using Q404.
  Picture swaying occurs as the picture brightness varies. To correct this, control the high voltage regulation using Q401(1N7000), R433 and C411 That is, Q401 is a circuit for correcting Static Regulation and used to prevent the picture size changing as the picture brightness varies.
  It detects the ABL voltage and inputs to Q401 Gate through R423 resistance. Then the ABL voltage change is sent to IC401(KA393) output and controls the DC of Q404(FQP630) Gate terminal, to keep the picture size from changing.

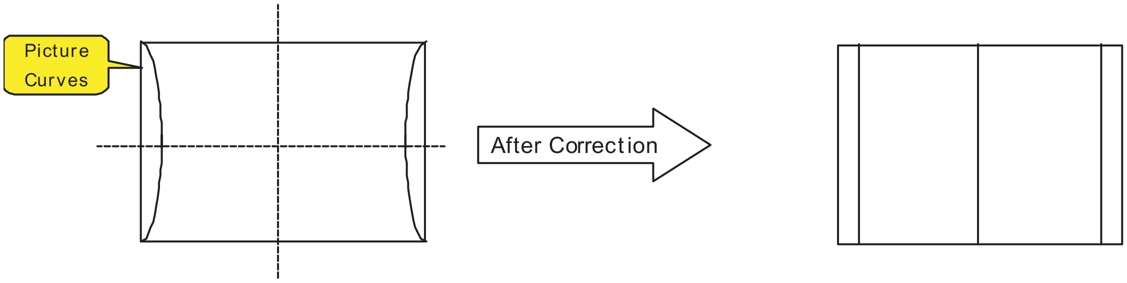
- E/W Circuit Constitution and Operation Principle.

  Also, E/W circuit functions as a compensatory circuit against the picture shaking by reversely compensating the picture swaying. This is possible by inputting ABL voltage to E/W using R433 as the picture brightness varies.

  There are H,V, PIN-COMP as well in Factory data and these correct the high voltage regulation. If the H-COMP capacity value increases, correction vector increases too and this causes a strong picture swaying. On the other hand, if the H-COMP capacity value decreases, correction vector decreases causing extensive picture size change. V-COMP, likewise, controls the vertical correction vector and operates in the same mechanism as H-COMP.

  PIN-COMP is a function which corrects the movement of four corners of a picture. If the capacity value is excessive, a picture curves outwards when the picture is bright. COMP capacity value, therefore, should be varied +/- 1step from the factory-adjusted condition, since a gain widely varies dependant on the SET distribution.

- Before and After of E/W Circuit Correction



13-3 IC Line up

■ F-Box Board

Items	Descriptions	Remarks
Micom, Scaler, Switching, Sound Processor	VCT69xyP	
Deflection Processor	CX2165	
PIP Processor	TW9906	
HDMI IC	MST3383	
DC/DC Converter	MP1410ES	
EEPROM	24C02	2Kbit
EEPROM	24C16	16Kbit
Regulator	SI-3002KWM-TL	Multi Regulator
Regulator	KA78R09CTU	9V Regulator
Regulator	78D05	5V Regulator

■ Main Board

Items	Descriptions	Remarks
BRIDGE DIODE	GSIB660	
Didode	SLA1004L	
Trans Switching	53B135-SC	
Trans Switching-ST BY	EE2020	
STR	STR-6759 (Asia)	
STR	STR-6750 (Europe/CIS)	
EW Driver	KA393	
Vertical Focus	MC4558C	
FET	FQP630	
Horizontal DEF	FJ6920, FMP3FU	

■ CRT Board

Items	Descriptions	Remarks
DRIVE IC	TDA6111Q	
IC HYBRID	STK396-130	
AMP	TDA2030	

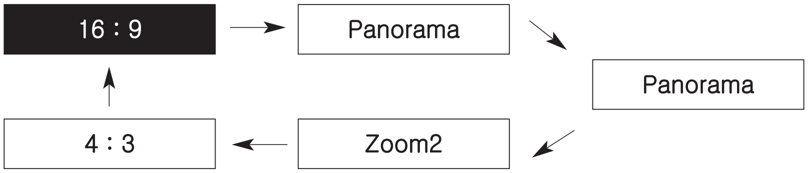
14. Reference Information

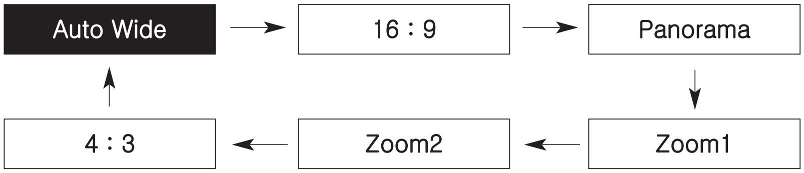
14-1 Other issues related to other products

■ SD/HD broadcasts and the TV's display capability are related

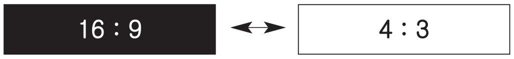
1. A digital broadcast should be transmitted in wide screen (an aspect ratio of 16:9) HD. If the broadcasting station converts a conventional program created in normal screen (aspect ratio of 4:3) into a digital signal and broadcasts the signal, the left and right of the picture will not be displayed.
   This symptom also appears in other manufacturer's TV's. The three appliance companies are trying to resolve the problem through the Ministry of Information and Communication.
   * When watching an SD (normal) broadcast through a Digital (Wide) TV (480P normal broadcast)
   * When watching an SD (normal) broadcast through a Digital Ready (Wide) TV (Using a set-top-box)
   * When watching an analog (normal) broadcast through a wide TV
     (When watching a broadcast after changing the aspect ratio of the TV from 16:9 (wide screen) to 4:3)
2. When watching a DVD title or video tape in wide screen (21:9) through a wide (16:9) TV, watching video from a computer or game console by selecting the aspect ratio to 4:3, or watching video from a DVD, VCR, computer or game console through a wide TV by selecting the aspect ratio to normal (4:3) or wide (21:9), the left and right, or top and bottom of the picture will not be displayed.
   This symptom appears in other manufacturer's TV's. The three appliance companies are trying to resolve the problem through the Ministry of Information and Communication.

■ Changing the Order of the Picture Size for 16:9 Display Devices





■ Changing the Order of the Picture Size for DTV 1080i/720p Sources



■ Restrictions

1. When you want to change the picture size in PIP 'ON', you must turn the PIP off before changing the size.
   However, you can change the main picture size even in PIP ON for products with no restrictions.
2. When the picture size is not Normal (4:3 for 4:3 display devices, 16:9 for 16:9 display devices) and you turn PIP on, the picture size is changed to Normal.
   However, you can turn PIP on without changing the picture size for products with no restrictions.
3. In the OSD notation for the picture size, 16:9 is represented as "Wide" instead of "16:9" for devices other than with 16:9 displays.
   Ex: For LCD 15:9 devices, "Wide" is displayed on the OSD instead of "16:9".
4. The picture size can be changed even in the blue screen.
   However, the picture size should be controlled by the product specifications if the change is impossible due to hardware restrictions.

14-2 Technical Terms

Analog Broadcast
Analog Broadcast is a television broadcasting signal transmitted according to the NTSC standard.

Anynet
Anynet is an AV network system that enables the easy-to-use AV interface for users by controlling connected AV devices through the Anynet menu when AV devices of Samsung Electronics are connected.

ANTENNA Terminal
A port to connect the TV aerial using a coaxial cable. It is generally used to watch public broadcast programs.

Audio Multimix
Audio Multimix provides 2 languages for audio when broadcasting a foreign movie, drama, news, etc. You can select and listen to one of the supported languages or you can select and listen to both languages simultaneously.

Cable Broadcast
Cable Broadcast transmits programs via cable instead of radio wave. To view a cable broadcast, you need to subscribe to your local cable broadcast service provider and install an additional receiver.

Component Terminal (Green, Blue, Red)
The Component Port separately transmits the luminance signal and provides the best quality of all video connection types.

Digital Broadcast
Digital Broadcast is a television broadcasting signal digitized and transmitted according to the United States' terrestrial digital broadcast standard, or ATSC.

DVD (Digital Versatile Disc)
DVD is a large capacity media that can save multimedia content such as video, game, audio applications, etc. using MPEG-2 video compression technology on a CD-sized disc.

English Caption
A function that shows English caption or text information included in the broadcasting signal or video tape. You can use this function to study English by watching AFKN or CC marked video tapes.

External Source
External Input is connecting video devices such as a VCR, camcorder, DTV receiver, DVD, etc. as a video source.

HDMI (High Definition Multimedia Interface)
An interface into which the digital signals as well as the high quality image data can be connected with one cable. There is no need to compress the bit rate.

Mono
A type of audio interface that transmits audio signals through a single channel.
Through a mono interface, it is hard to experience stereophonic sound and sound is played only by one speaker.

Reception Sensitivity Amplification
A signal amplification technique that amplifies weak broadcasting signals by applying satellite technology to provide a better visual quality even for users in regions where only weak broadcasting signals are available.

Satellite Broadcast
Satellite Broadcast transmits programs via satellite so that the broadcast is viable in all areas at a high visual and sound quality. It provides approximately 100 channels including public broadcast channels. To view satellite broadcast, you have to install an additional receiver.

S-VIDEO Terminal
This is called super video. S-Video is a type of video signal which has the video luminance and color signals separated in order to provide a better visual quality.

Stereo
A type of audio interface that transmits audio signals through 2 channels.
Stereo transmits audio signals for the right and left channels so that you can experience stereophonic sound, and the sound is played with 2 speakers.

Tuner
A device that enables selecting a specific frequency for a channel on a TV or radio.

VHF/UHF
VHF refers to TV channels 2 to 13, and UHF refers to TV channels 14 to 69.

Video/Audio Terminal
You may experience poor visual and audio quality when watching a video tape on channel 3 or 4 through the antenna cable. You can experience better visual and audio quality connecting the TV and VCR through the Video/Audio ports. The video port is distinguished by the color yellow, and the audio ports are distinguished by the white (left) and red colors (right).

Wired Broadcast
Satellite Broadcast refers to movie, entertainment and educational programs transmitted by the broadcasting station in a hotel or school.

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